FIRE SERVICE INDEPENDENT REVIEW


## FIRE SERVICE INDEPENDENT REVIEW

Report to the
Chief Executive
New Zealand Fire Service
by the Independent Review Team

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The Chief Executive
New Zealand Fire Service
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WELLINGTON

## Dear Sir

We have pleasure in submitting to you our report in accordance with the agreed Terms of Reference set out in our letter to you dated 9 September 1993.

In summary, it was agreed that our report would recommend, where appropriate, changes to organisational structures, management systems, policies, procedures and resources to improve the economy and efficiency of fire protection and related emergency service operations. The report would also propose an outline plan for implementation of the recommended changes and would provide an estimate of cost savings that would accrue. This report is our response to that undertaking.

In the course of the work we have consulted widely, not only within the Service but with representatives of organisations with an interest in the Fire Service. We thank them all for the obvious effort they made in presenting their views which were of great assistance to us. Regrettably time and resource limits did not make it possible to meet all those persons wishing to make representations to us, but we believe that our discussions were sufficiently widespread to provide us with a good understanding of the significant issues.

In our report we refer to the fact that many commendable initiatives for change are currently taking place, Despite this fact however, there remains a widespread and justified belief that unless fundamental structural change takes place the large gap between the current and the desirable situation will not be bridged.

Our recommendations involve significant change in the organisation structure and management of the Fire Service. Strong ownership of the reform process by the Commission, together with the committed leadership of the Chief Executive and senior management will be essential if successful implementation is to be achieved. It is only with these ingredients that a more productive partnership of all interested parties, both intemal and extemal, can be forged thereby enabling the considerable energies and initiatives currently available to be focussed on achieving a truly effective Fire Service in accordance with the expressed requirements and needs of the community.

Yours sincerely


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Richard Miller
Joe Auto

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## SUMMARY

## REVIEW DIRECTION

The Independent Review Team was commissioned by the Chief Executive to provide independent advice during his review of the New Zealand Fire Service and National Rural Fire Authority.

The Independent Review Team (IRT) was asked to investigate and report on changes to organisational structures, management systems, policies, procedures and resources to improve the economy and efficiency of fire protection and related emergency service operations.

The IRT's review involved a process of team deliberation, selective investigation and consultation with management, staff, external interest groups and other interested parties.

This has enabled the IRT to acquire a good understanding of the management structures, prevailing work-culture and decision-making processes operating within the New Zealand Fire Service.

Central govemment reform and growing interest by extemal interest groups in Fire Service outcomes and accountability, and intemal review initiatives appear to be creating wide pressure for change in the New Zealand Fire Service. The stimulating effect is evident and in general we perceive a widespread desire for change and modernisation.

We have been impressed with the commitment of firefighters, managers and staff to doing their best for the New Zealand Fire Service and the public of New Zealand. Their pride in the Service is evident and their desire to take on new responsibilities in the emergency area is commendable,

## RECENT PERFORMANCE

The starting point of the Independent Review was to assess the performance of the New Zealand Fire Service since nationalisation in 1976. It found:

* The cost of operating the Fire Service has risen since nationalisation.
- Much of this increase can be explained by real increases in remuneration (including superannuation) of operational firefighters and increasing non-operational staff. (Increases in responsibility, such as rural fire, are another but minor contributor).
- The value of property protected by the Fire Service has increased at a faster rate than the cost of the service so in this sense the Service's productivity has improved.
- However, the cost per life protected has risen slightly.
* In terms of total calls, there has been little change in the demands on the Fire Service. However, the number of emergency incidents attended by the Fire Service has fallen over the past seven years.
- This fall in emergencies, coupled to increasing costs, has meant a marked increase in cost per incident attended so in this sense the "efficiency" of the Fire Service has fallen.
- The quality of service provided by the Fire Service has improved. It is more effective at preventing fire, and in minimising loss of life and property damage in fires that do occur.
- There are substantial regional variations in the efficiency with which fire cover is provided. Some of the reasons for this variation can be traced back to pre-nationalisation days, when some cities chose to provide higher levels of cover than others. Wellington and Dunedin in particular appear to be well endowed with permanent firefighter posts in relation to their populations.
- Volunteers, through their free provision of labour, enable the Fire Service to provide reasonable cover where it would otherwise be unavailable. The cost of Volunteer Stations per fire is only around $20 \%$ of permanent and composite stations, on Wellington evidence.
* Volunteers, however, on average save less property per incident attended than permanent firefighters as a result of their longer tumout time, shorter time spent in training, different equipment, and generally less experience in attending fires.
* Variations in wage cost of supporting a Minimum Shift Manning post are due more to differing levels of extra shifts, overtime and callouts than base wage costs.

New Zealand's standards of fire cover and cost of fire protection appear to be on a par with other developed countries.

## ORGANISATIONAL DEFICIENCIES

Many recent improvements in the Fire Service and a wide number of others which are either in progress or mooted should help improve the effectiveness and efficiency of the organisation.

The Independent Review Team has attempted to clarify the aspects of the organisation and management processes which will need to be changed if the New Zealand Fire Service is to be modernised. These deficiencies are set out below:

## NEW ZEALAND FIRE SERVICE <br> INDEPENDENT REVIEW TEAM

## - Unclear Core Business

There is confusion within the organisation whether the core business of the New Zealand Fire Service is fire fighting or fire prevention and safety. At National Headquarters it is thought to be fire prevention while in the regions, closer to the level of service delivery, it is considered to be suppression.

The lack of clarity on what is the core business is reflected in ambiguity over what constitutes a strategic business unit in the organisation: functional directorates or regional/area commands. Problems in articulating outputs and measuring inputs to achieve them follow as a consequence. This is most strikingly illustrated in the Corporate Plan, where business activities are simply listed and their importance implied by budget allocations. This is repeated with monthly reporting to the Commission, where expenditure by function passes as a substitute for reporting on performance of strategic business activities.

## - Dysfunctional Structure

There are numerous deficiencies in the current structure, shown up in:

- unclear differentiation of the Commission and Chief Executive's roles,
- overcentralised authority.
- fragmented and overlapping responsibilities between Directorates,
- clogged control and communication lines between different parts of the organisation.


## - Regional Frustration

We detect more than "normal" regional frustration with headquarters' controls and growing resentment that local commands have to live with the consequences of what they perceive to be arbitrary and misguided decisions. We see potential for increased management responsibility and removal of hierarchical layers and permutations. The corollary of such changes would be reallocation of responsibilities in and from National Headquarters and reduction in the number of regions and districts.

## - Lack of Policy Formulation

The policy-making roles of the Fire Service Commission and the Chief Executive are confused. As a result, the structure and process for identifying strategic issues, corporate mission and objectives, defining outputs for service delivery, and measuring and monitoring performance against those outputs is inadequate. We believe that setting policy outcomes is the prime role of the purchasers of the service, at present the Commission as an agency of Govemment, which should be in close touch with public needs and concerned that Fire Service delivery represents value for money.

## - Lack of Systematic Planning

Planning systems in the organisation need to be clear, coordinated, systematic and based on objective analyses if activities are to be effective in meeting objectives and efficient in their use of allocated resources. Plans are currently not standardised and address the corporate objectives and defined outputs to varying degrees.

## - Allocation of Resources not Influenced by Corporate Plan

There is no apparent attempt by national management to allocate resource (funding) to identified strategic outputs. There also appears to be no standardised process for the quantification of outputs attached to capital expenditure applications.

## - Corporate Plan Objectives Obscure

Measurable objectives, where stated, give no indication whether they represent improvement, maintenance of status quo or reduction in service levels. This renders judgement of performance difficult, if not impossible.

## - Lack of Economic Analysis to Support Decisions

We have discovered attempts to analyse some operational requirements objectively but there appears to be no recognised cost benefit methodology employed at any decision-making level.

## - Unclear Measures of Operational Effectiveness

Standards of fire cover and manning rates are catch-all measures of effectiveness which do not readily reveal performance against objectives.

## Service is Supply Driven

Technically based standards of fire cover prescribe fire service delivery rather than customer demands and community needs. Consequently, the marketing, planning and selling functions are absent and there is no common commitment to customer satisfaction.

These observations apply equally to intemal services of the Fire Service in relation to operational "customers".

## - Financial Controls and Reports are Inadequate

for both internal and external purposes, In particular.

1. They do not provide management with the information required for management purposes. For example:

- no monthly balance sheet is prepared;
- inventory and fixed asset records do not fully integrate with the financial records on an on-going basis:
- little financial analysis is used to support capital investment decisions.

2. In relation to the annual financial statements:

- they are driven by the reports required to be delivered to the Minister for funding purposes. (In our view the funding requirements should be treated as a separate exercise.)
- although a charge for depreciation was introduced last year, the balance sheet does not reflect the accumulated depreciation for fixed assets spread over their useful working lives.
- interest-bearing loans appear to be substantially greater than they need be. (This situation has been caused by the inflexible use of sinking fund accounting and investment techniques.)
- definition of outputs and assessments of relevant costs are unsatisfactory; and
- significant accrued liabilities are not disclosed (gratuities and holiday pay).


## - Spend to Budget Mentality Evident

This attitude is the reverse of normal commercial practice. In the Fire Service a surplus is regarded as indicative of inefficiency and poor budgeting; in commercial practice (and modern govemment management) a surplus is good and a big one is better.

## - High Cost Staffing

The current shift system, crew sizes and staffing ratios, as well as general staff pay and conditions, are a heavy financial burden for the organisation yet the effectiveness of the reward system and cost/benefit rationale of the staffing systems are unclear. The terms and conditions of employment are seen as a major issue impacting on efficiency, effectiveness and recruitment of staff.

## Lack of Strategic Human Resources Management

There is no strategic direction driving and coordinating the human resource management activities of recruitment and promotion, staff development, reward and performance appraisal. Instead, staffing policies seem to stem from ad hoc decisions reached between management and unions during annual employment contract negotiations. This has led to an aging workforce, the creation of artificial positions, and inappropriate administrative roles for trained firefighters while willing and able staff are not given opportunities to prepare to advance.

## - The NZ Fire Service Act is Disabling

The Act confuses policy and executive roles, and does not encourage most effective and efficient management.

## PRESSURES FOR CHANGE

Pressures for change have been mounting on the Fire Service since the mid 1970s.

External pressures include increasing public expectations for greater Fire Service participation in non-fire emergencies and fire safety education, and rising stakeholder dissatisfaction with perceived funding inequities and inefficiencies within the Fire Service. External pressures have culminated in a call from several quarters for a full external review of the Service, including its role, funding base and legislative framework.

Intemally, there has been a reaction against nationalisation and the inflexibilities of centralised control. There is increasing pressure from staff, particularly at operational levels, for greater local responsibilities and discretion. The recent change in leadership has raised expectations that change is imminent and modemisation will take place.

These pressures have culminated in the Chief Executive's Review. This comprised both an internal review, including a quality improvement programme with extensive staff involvement, and the Independent Review of management structures, systems and operational costs.

## NEED FOR REFORM

Nationalised management of the New Zealand Fire Service, established with the Fire Service Act 1975, has been ineffective, notwithstanding the changes made in 1988-89. It has become a bureaucracy imposed on top of disparate fire services and has fallen short of the truly nation-wide integrated service envisaged, through lack of "buy-in" and commitment from the component brigades and former fire authorities and organisations.

The structure has not been adjusted in accordance with current public policy reform principles. Nor has it responded to the need to distinguish the management of policy formulation processes from operational planning and control.

The major need is to create a structure which reflects these reform principles and to apply effective management processes to Fire Service operations.

At the base of all fire services reviewed we have found effective fire suppression and other emergency management, and adequate, if less effective, fire prevention and safety promotion (as far as we are able to determine in the time available and from the international comparative data studied).

It is the organisation superstructure and management processes that are inhibiting growth in quality performance and restraining productivity improvements in the Fire Service.

## REFORM PRINCIPLES

A consistent set of principles has been applied to public sector reform in New Zealand over the past ten years. These also have application to the reform of the New Zealand Fire Service. They involve:

- clarification of Government's ownership interest and purchase interest.
an appropriation process based on a service contract through which Government purchases outputs which will advance its outcomes;
* the need to ensure a high degree of transparency between the Govemment's objectives and the means it adopts to achieve them;
- the need for contestability in policy advice and service delivery;
- the separation of policy advice and service delivery functions;
- clarity of mission statements and objectives;
- optimal accountability for financial and service performance;
- efficiency and effectiveness in all aspects of resource management;
- managers should have the freedom to manage in the context of devolved authority and flat management structures;
government agencies should develop increased customer goals;
flexible public sector labour markets should be established.


## REFORM DIRECTIONS

Fundamental reform rather than piecemeal change will be necessary to overcome the deficiencies the IRT perceives in the New Zealand Fire Service. The IRT proposes that reform be guided by four related change strategies for:

1. management structure
2. policy and planning
3. financial management
4. human resource management.

## 1. Management Structure

## Optimum Structure

The future structure of the NZ Fire Service should be regionalised and based on the principle of separation of the policy purchase function from the service delivery function.

At the apex of the new management structure is the Policy and Purchasing body, which defines fire and related emergency policy and negotiates the purchase of services required to achieve the policy. We believe this should be an expanded New Zealand Fire Service Commission.

The Fire Service Commission would be serviced by a small bureau of advisory staff, to assist in the review of policy, funding, purchasing and overall outcome verification. The Commission should set this up immediately, by appointing a director who would establish and lead the bureau.

The Commission would supplement the advice it receives on service purchase proposals from the Policy \& Purchase Bureau, by establishing a forum of extemal interest groups.

Fire Services would be provided through the establishment of three separate Regional Fire Business Enterprises. Each would have its own Board and Chief Executive with delegation of authority to give it control over the resources, and even more importantly the responsibility, to deliver the services which it contracts for.

Figure 1 depicts the proposed Optimum Structure.

Figure 1

## FIRE SERVICES

ORTIMUM STRUCTURE

## Interim Structure

The full implementation of the regional enterprise structure depends on new enabling legislation being passed. However, given the urgent need for progress, the IRT has devised an interim structure through which major change can be introduced without contravening the provisions of the Fire Services Act (1975).

Many of the expected benefits of the proposed reorganisation of the Fire Service, including clearer separation of the purchaser and provider roles and devolution of management responsibilities to the regions, would result from early implementation of the interim structure.

Figure 2 depicts the proposed interim structure diagrammatically.
In the interim structure, the NZ Fire Service Commission would have two working committees: one negotiating and monitoring the Service Agreement; and the other acting more like a commercial board of directors supervising the delivery of quality and productivity improvements. The Commission would establish alongside these committees a third committee to control the reform programme.

Apart from the interim management of the "business as usual" aspects of the Fire Service, the primary lask of the Chief Executive would be to implement a strategy for the regionalisation of the New Zealand Fire Service within a two-year period. The Chief Executive would be assisted in these tasks by a much slimmed-down head office based on Financial and Corporate Services Divisions and a Regional Fire Enterprises Establishment Unit comprising appropriate expert personnel.

As an interim measure a general manager for each of the Regional Business Units should be appointed by the Chief Executive for a term not exceeding two years. In turn, the Regional Business Unit General Manager should appoint managers for finance and services. Each Regional Fire Business Unit would be managed more in line with modem corporate principles than traditional military command processes.

Delivery of fire services to customers would be through a reduced number of enlarged Areas. The office of Area Commander would be the highest 'command' position, (as distinct from management position), in each Regional Fire Business Unit or, ultimately Regional Fire Enterprise. The Area Commanders would be appointed on the basis of professional capability and qualifications for these senior operational positions.

Figure 2: $\quad$ Fire Service Interim Structure


A key element in promoting positive change should be the introduction of a new salaried three-watch system with Relievers. Apart from achieving considerable efficiency and economy gains, the introduction of this new system would permit a large variety of strategic objectives to be achieved including:

- the rejuvenation of the service;
greater productivity;

4 the elimination of competitive rivalry between yolunteers and permanents;

- a guaranteed salary for firefighters in keeping with their professional status; and
* a more stimulating work environment for both qualified firefighters and junior Relievers.

Area Commanders should be allowed discretion in fine-tuning the system to meet local needs, achieve operational efficiencies and cater for workforce preferences. This would create greater flexibility and a degree of positive competition between brigades.

Should the introduction of such a system not prove possible, some other strategy for promoting fundamental change would need to be considered. Among the options available to the Fire Service would be a move from permanent urban forces to a system involving a mix of professional, retained and volunteer firefighters based on the Danish or Dutch models.

Allied with these changes in working patterns and reward systems there would be mandatory annual performance reviews of all management and command positions, based on evaluation of performance against mutually agreed objectives which would be the basis for compensation rewards and incentives.

All personnel appointments would be based on qualification and performance, and not on length of service or the need to provide jobs for firefighters who are no longer able to perform adequately in a physically demanding operational role.

## BENEFITS OF REFORM

Many tangible and intangible benefits will flow from the reforms proposed for the New Zealand Fire Service.

- The NZ Fire Service and the Fire Service Commission will focus more clearly on serving the needs of the community.
* This will demand consideration of how these necessary services may be delivered more efficiently and effectively.
- The Fire Service will provide greater opportunities for its employees:
- by giving them a more responsive work environment;
- by providing better recognition of contribution; and
- by creating an organisation which is accountable for the quality of its service.

4 Each part of the Fire Service will be clearly focused on its core business. Confused and conflicting directions and motivations will be rationalised.

4 The Fire Service will be more capable of achieving its objectives.
4 Advice to Govemment will be sounder and more clearly analysed, and contestable.

- There will be effective provision for the articulation of community and interest group opinion.
- A restructured, more efficient Fire Service will release poorly utilised resources for better allocation either within the Service or within the community as a whole.

A higher proportion of permanent employees in the New Zealand Fire Service will be concentrated on operational fire fighting. The operational staff to management/clerical staff ratio increases from 5.4 to 8.9 in the interim and 10.4 in the optimum structure.

There will be total potential annual savings of $\$ 29$ million, once the final structure is in place. This represents a saving of around $17 \%$ of current spending. It includes $\$ 25$ million in pay costs per annum accompanying a net fall in staff of 560 . Most of the savings will be achieved under the interim structure (ie $\$ 27.5$ million), with a staff reduction of 530 .

- Under both structures, the major source of saving is the move to the three watch system. The net reduction of around 340 operational firefighters will mean a reduction in pay costs of $\$ 17.4$ million per annum.


## NEW ZEALAND FIRE SERVICE INDEPENDENT REVIEW TEAM

## 2. Policy and Planning

The separation of purchaser and provider roles should be cemented into policy and planning processes with a clear distinction made between the different roles of the Commission, the Chief Executive, Regional General Managers and Area Commanders.

The separation will allow the Commission to concentrate on formulating policies that relate to the overall need for and direction of fire suppression, prevention and safety activities carried out by the Fire Service. The Commission should be responsible for advice to the Government on outcomes related to fire services and for specification of those outputs/services it wishes to purchase in order to achieve the desired outcomes.

Closely related to policy issue identification will be assessment of service delivery levels. The Commission will need to assess independently whether it has received value for money from the services it purchases. The principal check on service delivery should be the audit of performance measures specified in each purchase contract.

The service contract between the Commission and the Fire Service should be embodied within the Fire Service Corporate Plan. This Corporate Plan should, in terms of the Public Finance Act, provide clear information on proposed activities for each financial year, as well as serve as a tool for longer term planning. The annual reports of the Fire Service should provide an account of the costs of and progress towards corporate plan and outputs.

Under a regionalised structure the process should generate plans on three ascending levels from Area Business Plans, through Regional Business Strategies to the Corporate Plan at the national interface of the Fire Service and Commission.

The culmination of the 'bottom-up' planning process will be the Fire Service Corporate Plan(s). The Fire Service Corporate Plan should outline both the service agreement between the Fire Service and its primary customer, the Commission, and the strategic issues, goals, directions and other activities to be undertaken by the Fire Service in line with its own mission and objectives.

The basis for operational development planning should be achievement of levels of protection agreed with the Commission. The level of fire protection should be determined by continuous policy review in a circular process between the Commission, which assesses social need and affordability, and the Fire Service which can assess what is operationally achievable.

We recommend Wellington should be the location for a pilot project to test the proposed development planning method of simulating resource disposition altematives and evaluating the costs and benefits of different levels of cover. This should take place under 'laboratory conditions' with input from community and stakeholder interests, assessing fire risk by locality in the region.

## 3. Financial Management

The financial control and reporting of the Fire Service Commission are limited and constrained by the lack of compatibility of the Fire Service Act with the Public Finance Act.

Present financial reporting and analysis do not greatly assist management decision-making processes. In particular, capital expenditure choices are not prioritised or based on sound financial analysis.

To make a proper contribution to the progress of the reformed Fire Service the controlling legislation should clearly require full compliance with the Public Finance Act and generally accepted accounting principles, not the least of which is full monthly reporting. The treasury and investment rules should be simplified at the same time to allow more efficient management of investments and borrowing. The internal audit function should be strengthened and matched with audit committees.

In the interim structure certain finance functions will be devolved to the Regional Business Units. The quality of service will need to be strengthened to match the demands of an autonomous division. The role of the finance function must convert from a centralised control activity to a decentralised service, assisting all managers to achieve their business objectives but consistent with the Commission Management Board's financial control and reporting requirements.

## 4. Human Resource Management

A comprehensive human resource strategy is required which will reverse:

- the escalating cost of the Fire Service's operations;
- the lack of productivity of its workforce; and
- the aging of its personnel.

Immediate steps must be taken to achieve efficiency and effectiveness gains while making provision for the continuing revitalisation of the service. This will require fundamental change to present arrangements for:

- shift, watch and roster systems;
- human resource systems and management processes;
- industrial relations policies;
- recruitment and training policies; and
- organisational culture.
- Under the interim structure, there would be a net reduction of around 200 in National Headquarters staff, staff at regional headquarters, non-uniformed staff in the areas and districts, and control room staff, including an offset of 27 positions created in the Commission's new policy and purchase bureau. This would give a net saving of $\$ 7$ million in pay
- Under the final structure, the net reductions savings in the above would be 230 positions and $\$ 8$ million in pay
- In addition to the pay cost savings, there will be savings in other personnel costs. The annual savings in superannuation cost,(comprising $80 \%$ of these costs and the only component directly proportional to number of employees) are $\$ 3.4$ million under the interim structure and $\$ 3.6$ million under the final.
- Capital savings will also result from introduction of the proposed new structure, for example reduction in the number of control centres. These have not been estimated but could be significant.
- Further savings will be achieved through implementation of the operational development planning method proposed by the Independent Review Team. This would arise from reductions in both capital and maintenance spending on fire stations and equipment.
- There will be improved opportunities for volunteers through a betterintegrated service and better allocation of equipment to support them.

The new organisations will provide opportunities for further efficiency gains in the overall field of emergency services.

## COMMITMENT TO FUNDAMENTAL CHANGE

The fire services of New Zealand are in need of substantive changes in many areas. These changes require entirely different organisation structures and management processes.

The proposed organisational structure, line and staff management processes and devolution of responsibilities first to Regional Business Units and ultimately to Regional Fire Enterprises are all widely different from the structures and processes existing currently.

Establishment of the proposed organisational design and management processes will require inspired leadership and commitment to the need for fundamental change.

At present there is widespread frustration that new ideas favourable to change are stifled by an over centralised system of control which is insensitive to the diverse needs and opinions outside national headquarters.

We believe the change proposed will release the wealth of initiative available within the ranks of the Fire Service which is waiting to be hamessed.

## RECOMMENDATIONS

The Independent Review Team's reform proposals are elaborated in full and recommended in detail in Chapters 4 to 9 as follows:

New Zealand Fire Service Structure Rural Fire Structure
Policy and Planning
Financial Control and Reporting Procedures Human Resource Management Implementation

Section 4.7, page 63 Section 5. throughout Section 6.8, page 113 Chapter 7, throughout Section 8.9, page 171
Section 9.throughout

Implementation of the reformed management structure proposed by the Independent Review Team can be achieved in foutteen steps. The IRT recommends that:

1. The Fire Service Commission and the Chief Executive of the Fire Service adopt and implement the recommendations of this report.
2. The Fire Service Commission recommends to the Minister of Intemal Affairs that establishment of the Regional Fire Enterprise structure be agreed to by the Government as the ultimate objective of New Zealand Fire Service reform and seeks his support in achieving the objective.
3. The Fire Service Commission and the Chief Executive of the Fire Service commit themselves to early establishment of the recommended interim structure, in order to quickly achieve the potential benefits of increased policy and management effectiveness.
4. This report is presented to an informal session of the proposed extemal Interest Groups Forum to gain the widest possible support for the proposed changes.
5. A programme to present and explain to staff the reforms proposed in this report is undertaken urgently.
6. The Commission establishes the three advisory committees (Reform, Purchase and Management), appoints their chairs and the members.
7. Each of the proposed Commission committees establishes a plan of action with objectives and key milestones identified.
8. The Commission makes an appointment under section 18 of the Fire Service Act to the position of Director, Policy \& Purchase Bureau who in tum organises the establishment of the Bureau.
9. The Fire Service Commission revokes any of its policy functions currently delegated to the Chief Executive of the Fire Service, and vests them instead in the Director of the Policy \& Purchase Bureau.
10. The Chief Executive of the New Zealand Fire Service, the National Commander, and the General Managers proposed in the interim structure of the Fire Service be appointed on contracts of discrete terms to match the period of the interim organisation.
11. All other positions continue until the reform process finalises appropriate new positions and, specifically identifies positions which should be disestablished.
12. As the new organisations are set up all positions be advertised and appointments of the best candidates be made.
13. The Fire Service Commission recommends to the Minister of Internal Affairs that the legislative and funding base for the provision of the fire and related emergency services should be reviewed in order to achieve the structure of three Regional Fire Enterprises separate from the Fire Service Commission.
14. The Fire Service Commission recommend to the Minister of Intemal Affairs that he advise Government to review the potential for consolidation, cooperation or coordination of all purchasing agencies obtaining emergency services for the Crown.

## 1. SCOPE AND APPROACH



## 1. SCOPE AND APPROACH

## 1.1 <br> SCOPE OF INDEPENDENT REVIEW

In mid-September 1993 an Independent Review Team (IRT) was commissioned by the Chief Executive of the New Zealand Fire Service to assist him to conduct an internal review of the Fire Service and the National Rural Fire Authority as required under section 17E of the Fire Service Act (1975).

The need for the Chief Executive to conduct an internal review was endorsed by the NZ Fire Service Commission and the Minister of Internal Affairs earlier in the year, and the terms of reference of the internal review noted by the Cabinet in August.

The Terms of Reference indicate the scope of the Chief Executive's review.

1. To review organisational structures, management systems, current policies and practices, and resources affecting the provision of fire protection and related emergency services (in terms of the Fire Service Act 1975) within New Zealand and identity any improvements in economy and efficiency of operation that could be made.
2. In examining the issues raised above, particular attention is to be given to the following matters in respect of the New Zealand Fire Service:
(1) The respective roles and responsibilities of, and relationships between, the Chief Executive and the Fire Service Commission in setting policy affecting fire protection and related emergency services.

The command structure and associated personnel establishments.
(3) The disposition of fire stations, appliances and operational personnel.
(4) The pay and conditions of service of both paid and volunteer firefighters.
(5) Accountability for both operational effectiveness and the economical and proper expenditure of ajocated resources.
3. An estimated cost comparison is to be made between what is currently provided and what is proposed.
4. An outline plan is to be provided covering the implementation of any changes recommended.
5. In carrying out this review the team is to corsider the present interaction between all agencies that have resporsidities to discharge in providing protection against fire and associated cengers and identify any adjustments to those relationships which would improve the overall economy and efficiency of operations through the elimination of unnecessary duplication.

The Independent Review Team is made up of Wellington business people with public sector experience:

Malcolm McCaw (Chairman), a chartered accountant and company director, previously principal of Deloittes and currently chairman of the State-owned Enterprises Steering Committee.

Joe Auton, an accountant and company director, previously Chief Executive of Ford New Zealand and Ford Asia, whose responsibilities currently include Chairman of Capital Power Lid.

Richard Miller, strategic planner and company director with public and private sector management experience, and currently principal of strategic planning and management consultancy. McDermott Miller Ltd.

The IRT retained McDermott Miller Ltd as the project manager for the Independent Review. McDermott Miller also provided strategic management, human resource management experts, and policy analysts, while Deloittes provided financial management expents. This gave the Independent Review Team a balanced mix of expertise to conduct the review.

Annex I shows the organisation of the Independent Review Team project.
The IRT was commissioned specifically to investigate and report on changes to organisational structures, management systems, policies, procedures and resources which would improve the effectiveness and efficiency of fire protection and related emergency service operations. An outline plan for implementation of the recommended changes and an estimate of cost savings that would accrue was to be provided.

It was agreed the report on the Independent Review would be presented initially to the Chief Executive and then be referred to the Fire Service Commission and the Minister of Intemal Affairs. Once the Commission had received it, the IRT's report would be released to the New Zealand Fire Service management and staff, and to the general public.

Originally, the Independent Review was to have been undertaken in four phases:

1. Preparatory
2. Reconnaissance of Issues
3. Investigation and Evaluation of Solutions
4. Report and Recommendations.

The IRT was to have reported, on the reconnaissance phase only, by December. The report was to have assessed the strengths and weaknesses of the existing organisational structure, management systems, policies and resources, and to have highlighted the key reorganisation issues which would need to be addressed to meet the objectives of the review.

A desire on the client's part to speed up the review process led to agreement to report in December on measures which could be taken immediately to improve the effectiveness and efficiency of the New Zealand

Fire Service and the National Rural Fire Authority, and to prescribe comprehensive changes to management structures, systems, and procedures.

## APPROACH TO REVIEW

The IRT started its review by reaching agreement on philosophy and principles to guide reform. This is presented in Chapter 5.

This was followed by an appraisal of the organisational structure, management systems and other issues affecting the effectiveness and efficiency of the Fire Service. This involved a process of team deliberation, literature and documentary review, selective investigation, surveys and consultations with management, staff, external interest groups and other interested parties. The IRT had unrestricted access to members of the Commission, management, staff and Fire Service records. It was also able to commission special reports from the Fire Service management through the Chief Executive.

The Independent Review ran alongside, but was separate from, an internal Fire Service review programme involving focus group discussions with permanent and volunteer fire brigades, and rural fire forces. The IRT was privy to the results of this programme.

During this phase the IRT also analysed and considered the performance trends evident in the Fire Service.

The Independent Review Team completed the preparatory and reconnaissance of issues phases of its review and presented an interim report in late October. The review to that date involved an intensive process of consultation with the Fire Service Commission, Commissioners, the Chief Executive, Directors reporting directly to him, Regional Commanders as a group, the Auckland, Hamilton, Palmerston North, Wellington, Christchurch and Dunedin Regional Commanders individually, and some commanders reporting directly to them. Meetings were also held with the National Rural Fire Advisory Committee and a sample of forestry and rural firefighting interests. A list of the 81 parties who were formally interviewed by the IRT is appended.

The Independent Review Team also considered available reports on the Commission's policy-making process, the Fire Service's corporate planning process, the Service review process and the budget process. In the course of this, numerous interviews were held between IRT consultants working on special areas of investigation and Fire Service officers.

Collectively the consultation, interviews and documentary review gave the IRT a good understanding of the prevailing work-culture, management structures and decision-making processes operating within the New Zealand Fire Service and the management issues it must confront.

In the subsequent phase of the Review, the IRT carried out investigations into:

* organisation design and management structure (see Chapters $4 \& 5$ );
* policy and planning systems (see Chapter 6)
* financial management systems (see Chapter 7)
- human resource management systems (see Chapter 8)

The findings from these related investigations provided the basis for the IRT to evaluate alternative management solutions and reach agreement on reform proposals which should be recommended (see Chapter 9).
1.2.1

Acknowledgment
The Independent Review Team and its consultants appreciate the cooperation of all the people in the New Zealand Fire Service and Rural Fire Authority whom we approached for help in collecting information and carrying out investigations.

We would particularly like to thank the researchers of Planning and Review, the reference librarians, the Rural Fire staff and the Finance and Personnel Directorates, for the valuable contribution they made to our investigations. We realise that our requests came at a time when staff were under pressure to perform in an organisation undergoing changes. We appreciate the zest with which the Regional and Area Commanders and their staff responded to our questionnaires and submitted proposals for change. We have seldom before had $100 \%$ responses to surveys.

The IRT also received considerable other documentary and field information from the extemal interest groups it interviewed. It appreciates this practical help.

Annex 2 lists the parties interviewed by the Independent Review Team and its consultants.

2.

## CURRENT SITUATION

This chapter is an examination of the situation facing the New Zealand Fire Service and the pressures for change upon it. The material in the early part of the chapter is to serve as an introduction to the New Zealand Fire Service and Commission for readers not familiar with the organisation

## It covers:

- Structure of the New Zealand Fire Service and Commission;
* An outline history of the origin of the current system and how it evolved over the last seventeen years to reach its present state;
* An examination of trends in cost, efficiency, and effectiveness of the Fire Service over time;
- Inter-regional comparison of performance, including comparisons between permanent and volunteer brigades;
- International comparisons of the cost of fire protection:
- A summary of the pressures for change in the Fire Service that have lead to the present review, and concurrent reviews.

The analysis of cost and performance was carried out using data in Fire Service publications and drawn from its databases.

The IRT found no data series within the Fire Service on the changes in the Services cost and performance since nationalisation. It was therefore necessary for the IRT to develop a suitable data series in the course of the Review. The principal sources of information for the series were:

- The Fire Service Commission's Annual Reports 1975-93 (the only source of long-run information dating back prior to nationalisation);
fire and other incident statistics published in Fire Incident Reporting System (FIRS) reports, since 1982;
unpublished FIRS data provided by the Planning Review Division for the period of computerisation of FIRS ie 1986-1993;
- the Aide Memoir on Statistics (years 1982-1990):
- Data provided by the Finance and Personnel divisions.


## 2.1 <br> STRUCTURE

The material in this section comes from the New Zealand Fire Service Commission's Corporate Plan for 1993/94 and the Fire Service Act, supplemented by material from other reports prepared by and for the Fire Service.

### 2.1.1 Fire Service Commission

The New Zealand Fire Service Commission under the auspices of the New Zealand Fire Service Act, 1975, administers and controls the New Zealand Fire Service to provide fire protection for 265 urban fire districts and to promote and coordinate fire safety throughout New Zealand. The Commission is also the New Zealand Rural Fire Authority under the Forest and Rural Fires Act.

The Commission is composed of four members, three are appointed from time to time by the Govemor General, on the recommendation of the Minister of Internal Affairs, of whom one is appointed as Chairperson. The fourth member is the Secretary of Intemal Affairs.

### 2.1.2

New Zealand Fire Service
The paid staff (not including vacant positions) of the New Zealand Fire Service stood at 2500 in July 1993. Of this, around 1890 were permanent (paid) operational firefighters (up to and including the rank of Divisional Officer). In addition, there were approximately 7000 volunteer firefighters and fire police.

Some 2250 of the paid personnel are uniformed; there are 360 uniformed personnel other than the operational firefighters. This includes 110 executive officers (including national and regional commanders) and around 100 control room personnel, with the remainder being engaged in workshop duties, training, fire safety, and "special duties".

Around 10\% of total paid personnel (ie 250 ) are non-uniformed.

Table 2.1: New Zealand Fire Service Personnel (July 1993, Actual)

|  | Non- | Total |  |
| :--- | ---: | ---: | ---: |
| Uniformed | Uniformed | 1893 |  |
| Operational Firefighters | 1893 |  | 151 |
| Other Staff in the Regions | 342 | 493 |  |
| Subtotal - Staff in the Regions | 2235 | 151 | 2386 |
| National HQ (incl. Rural Fire) | 18 | 98 | 116 |
| Total Paid Staff | 2253 | 249 | 2502 |
| Volunteers incl. Fire Police | 6989 |  | 6989 |
| Total Firefighters \& Fire Police | 8882 | 8882 |  |
| Total Incl. Volunteers |  |  |  |

2.1 .3
2.1.4
2.1 .5
2.1 .5

Chief Executive - National Commander
The Commission appoints a Chief Executive who is the administrative head of the Fire Service. If the Chief Executive is not a uniformed Fire Service officer and is therefore not qualified to hold the statutory office of National Commander, the Chief Executive is required to appoint a person with senior operational fire fighting experience in an urban fire service to be the National Commander. Currently these positions are held separately.

## National Headquarters

The New Zealand Fire Service National Headquarters supports the Commission, Chief Executive, National Commander, and the National Rural Fire Officer in their statutory roles and functions. Its staff

- develop policies for Commission approval:
- implement, coordinate and control approved policies;

4 monitor and review policies;

* liaise with organisations and authorities at a national level;
- provide specialist expertise, and
- develop and maintain systems for management support.

National Headquarters staff in July 1993, excluding Rural Fire Division (8) and vacant positions, totalled 108, comprising 18 uniformed and 90 nonuniformed staff.

## Regions

For organisation and command purposes the Fire Service has been divided into six geographic regions covering the whole of New Zealand including Stewart and Chatham Islands. These are illustrated in Figure 2.1.

Each region is headed by Commander, each of whom holds the rank of Fire Force Commander. The Regional Headquarters are mainly administrative and have staff in support of this function.

Operational control is exercised through twenty Area He=dquarters.
Within each fire area are Fire Districts as described by the Act. Currently there are 265 gazetted urban Fire Districts. The Service has a statutory responsibility to respond to Fires only when they occur within Fire Districts, but may respond to fires outside them:
the National Commander must make provision in every Fire District
for the prevention and suppression and fires; for the prevention and suppression and fires;

* the Chief Fire Officer of the district shall forthwith proceed" (s28) in response to an alarm of fire within the Fire District; in the case of Fire beyond the boundary of the District he/she may groceed forthwith" (s28A) to the emergency.

Similarly, the Chief Fire Officer may respond to non-fire emergencies within the Fire District but is under no legal compulsion to do so.

In practise, the Fire Service responds to almost all strumure fires within 20 minute's travel, and frequently beyond that. It alss freely (but not necessarily without charge) responds to non-fire emergencies both within and without the Fire Distries, and it assists with vegetetizn fires outside the Fire District.

Figure 2.1 New Zealand Fire Service Areas and Regions


The number of operational firefighters in each region - both permanent and volunteer - are illustrated in Figure 2.2.


## Command and Control

The line of command and control of the Fire Service runs:

* The National Commander to the Commanders of the six regions.
- From each of the six Commanders of the Regions to each of the Commanders of Areas within each particular Region.
From each of the Commanders of the Areas to each Commander of the Districts within each Area.

From each of the Commanders of Districts to each person in his particular District through the organisation and rank structure laid down to the lowest grade probationary firefighter or probationary civilian employee.

The Commanders of Areas are in practice also the Commanders of the main District (designated '01') in their Area. Commanders of Districts hold the statutory role of Chief Fire Officer.

Auckland and Wellington have a further level, below the District, that of Division. These areas are headed by Divisional Commanders, and are a carryover from past amalgamations of permanently manned brigades.

Fire Ground

At a fire or other emergency attended by the Fire Service the person in charge at the time has wide powers of entry to property and control of resources pursuant to the Fire Service Act 1975. These include:

- directing all persons who place their services at his disposal;
* enter any land or building, breaking in if necessary, for the purpose of carrying out his duty;
- pull down buildings and cut down trees to prevent the spread of fire
- control the water supply:
- blocking of any roadway:
* remove, using reasonable force if necessary, any person who interferes or is in danger.
2.1.8 Mission and Objectives

The Corporate mission and goals of the New Zealard Fire Service are published in the 1993-94 Corporate Plan. This plan provides a framework for the specific tasks to be carried out over this twelve month period by the New Zealand Fire Service.

## Corporate Mission

To serve the community by protecting life and wellbeing, property and the environment from the effects of fre and other dangers.

## Objectives

Under the Fire Service Act 1975 and the Forest and Rural Fires Act 1977 the Commission has the following statutory objectives:

- promotion of fire safety in relation to life and property,
- national co-ordination of fire services;
- national co-ordination of rural fire control (as the National Rural Fire Authority);
- monitoning, within urban fire districts reticulation of water supplies for built-in fire protection and firefighting;
approval of building evacuation schemes, in accordance with the relevant statutory and regulatory criteria;
operation of an effective and cost efficient Fire Service, including:
- ensuring the Fire Service is maintaired in a state of operational efficiency;
- fighting fires within urban fire districts;
- attending and taking action as appropriate at hazardous substances emergencies and other nor-fire emergencies within urban fire districts
- attending and taking action as appropriete at fire incidents, hazardous substances emergencies arc cther non-fire emergencies outside urban fire districts:
* audit of the Fire Service levy and follow up action;
* establishing policy direction and monitoring its implementation.


## Fire Service Activities

The Fire Service can pursue these objectives through three main activities; Fire Safety Promotion and Education, Urban Fire Protection, and Rural Fire coordination. The Commission's views on these activities, as contained in the 1993/94 Corporate Plan, are presented in the following boxes.

## Fire Safety Promotion and Education

The Commission, through the Fire Service, has an active and co-orcinating role in promoting fire safety. It is concemed to reduce the incidence of fire and the attendant risk to life and property, and to achieve unity and completeness of fire safety law and pracoce.

To do this it tries to co-ordinate ternitorial authorities, govemment deparments, the architectural and engineering profession, the building industry and others, in relation to fire safety.

The Commission promotes fire safety through the Fire Service maintaining working relationships with the relevant authorites and other organisations and by their fire safety education and pubifity programmes.

Buit-in fire protection is of particular interest to the Comrrission. It continues to encourage the mandatory installation of sprinkler systems in certain types of butdings, for instance, cinemas, theatres, hospitals, schools and the Iike.

On behalf of the Commission, the Fire Safety Division at Nasonal Headquarters monitors legislative changes, advises on fire safety, and seeks to have fire safety requirements incorporated into legislation. It also develops fire safety policies and promotional activities for national implementation.

Fire Safety Departments at each. Area Headquarters carry cut bulding inspections, promote good fire safety practice in homes and work places through educatonal programmes, and investigate the causes of fires. Operational staft also take an active part in the promotion of fire safety and fire cause investigation.

## Urban Fire Protection

The Commission, throught the New Zealand Fire Service, provides for the prevention, suppression and extinction of fires, and the safety of persons and property endangered by fire, in every urban Fire District. Fire fighting resources are also used to protect the and property from other dangers

For organisation and command, the New Zealand Fire Service aivides the country into six geographic regions. These Fire Regions are sub-divided into 20 Fire Areas. The Fire Service is responsible for the 265 defined urban Fire Districts within the Fire Areas and provides a 24 hour service in each.

Fifty-eight Fire Brigade Auxifary Units are maintained in rural areas outside the Fire Districts.
Twenty Industrial Fire Erigades at major industrial sites are registered with the Fire Service Commission.

The 19 Fire Districts which include the cities and larger towns have employed firefighters and cherer staff, with volunteer firefighter support in some places.

Volunteers are an essental part of the New Zealand Fire Service making up some three-quarters of the fire fighting force in the Fire Districts covering smater towns, 246 in all, it is volunteer firefighters who respond to emergencies.

At 31 March 1993 a total of 2522 uniformed and non-uniformed staff were employed in the Fire Service and volunteer tire brigades had 6955 members.

Fire stations range from large city stations with six or more tre apçances and special vehicles, and accommodation for several crews, to single appliance siations in suburbs and sman towns. There are, in all, 430 fre saations throughout New Zealand.

The fire fighting feet comprises some 705 pumping appliances and 103 specialist appliances swch as tumtable ladders, rescue tenders and the 5ke. There are 249 sars, station wagons and Eght commercial vehicles for operational support purposes. An acticinal 45 vehicles are used for operational saftety and theath, communications and other adm:srative functions.

> Rural Fire Co-ordination
> The Commission, as the National Rural Fire Authonity, co-ordinates fire services provided by Rural Fire Authonites. These authonities include district councils, some forest owners and land-owning Government departments.
> The functions of
> the National Rural Fire Authority are to advise on nural fire issues, co-ordinate nural fire control, maintain a Rural Fire Management Code of Practice and monitor its use, oversee approval of rural fire plans, and administer the Rural Fire Fighting Fund.
> The National Rural Fire Officer has the Rural Fire Division which camies out these functions.
> The Regional Rural Fire Officer heads the Rural Fire Division which camies out these functions.
> Regional Rural Fire Officers at Hamilton, Palmerston North, Christchurch and Dunedin provide technical advice to Rural Fire Authorities and co-ordinating commimees.
> Rural fire co-ordination staff total eight.

## 2.1 .10 <br> Funding Fire Services

The funding for the New Zealand Fire Service Commission is from two primary sources. These are:

- an Insurance Council Levy, of 6.2 cents per $\$ 100$ insurable value, effective from 1 July 1993, in place of the earlier 6,75 cent rate;
- a Crown Contribution, set so that the respective proportions of the Levy and Crown contribution are $92 \%$ and $8 \%$.

Estimated contributions for the year to June 1994 are $\$ 156.9$ million from the Levy, and $\$ 13.6$ million from Crown contribution, for a total of $\$ 170.5$ million.

In addition to these sources of income the Fire Service Act allows the Commission, at its discretion, to charge for various services or activities of the Fire Service. Miscellaneous income has been estimated at $\$ 1.9$ million for 1993/94.

Rural Fire Authorities are funded by local authorities with limited grants provided by the National Rural Fire Authority to encourage the appropriate standard of equipment, training and pre-fire planning. The Authority also administers the National Rural Fire Fund, which contributes toward the cost of fighting major rural fires.

### 2.2 EVOLUTION OF THE FIRE SERVICE

Nationalisation 1976

Standardisation 1975-88

The formation of the New Zealand Fire Service - hationalisation = was motivated by a number of perceived problems rather than a single overriding one. Most of these problems were seen as stemming from the proliferation of fire boards and fire committees - almost 300 of these.

Problems included poor coordination of resources between brigades and lack of cooperation and mutual aid at incidents. Many fire stations had appliances obsolete or otherwise of low quality due to lack of investment by local authorities and there was limited ability to handle new hazards, exemplified by Pamell's chemical emergency of 1973 .

There was consequent concem over sufficiency of fire (and other hazard) cover and concem about effectiveness and efficiency of resource use. The creation of a national Fire Service was seen by its proponents as essential for overcoming these deficiencies.

One of the major driving forces of the Fire Service, which remains strong today, was the belief that the development and imposition of nationwide standards was the only sure route to overcome the lack of effectiveness and efficiency of many of the brigades prior to nationalisation. Such standards are now pervasive in the Fire Service in operational procedures and planning, in equipment, training, planning of new stations, manning of appliances and rostering, and response time.

Most of the review and reforms of and within the Fire Service over its first decade were aimed at achieving such standards. Introducing standards was seen as synonymous with raising standards.

Two reports are of particular significance to the current disposition of the Fire Service's resources and the cost of the Service:

Report of the Working Party on Manning (1984) - The Working Party's task was to "stablish criteria for the present and future manning needs of the New Zealand Fire Service: The report contains recommendations on manning of appliances that were subsequently implemented via the Resource Review below:

A Review of the Principal Fire Fighting Resources for the NZ Fire Services (1987) (cited as the 1987 Resource Review in this report) This defined the resources required by each fire district - stations, appliances and personnel - to achieve a defined standard of fire cover.

The current Standards of Fire Cover, setting attendance time and weight of response standards at each of three classes of urban property risk were proposed in this review. They were later confirmed by the Commission and promulgated via notice in the NZ Gazette. The appliance establishment was set for each station.

Crewing of appliances was standardised (at four for pumps and two for specials). Minimum shift manning" levels for permanently manned districts were set accordingly. Personnel establishments
were recommended for each of these districts, using a standard "Manning Ratio" - also set in this review.

The Standards of Fire Cover and 1987 Resource Review are discussed further in Section 6.6

The appliance and personnel establishments set in the 1987 Review largely remain in force, with modifications in some districts. The Standards of Fire Cover and appliance manning levels have been confirmed most recently in 1992 in a document by the then Chief Executive/National Commander.

Changes
initiated from the Outside 1988-91

Since 1988 the Fire Service has come under pressure to adapt to the new era in the public service, to become more efficient and effective, its managers more accountable, to state its mission and to define goals and objectives against which its performance can be objectively measured. Influential reports since 1988 include:

- New Zealand Fire Service Commission: Effectiveness of Management of the Fire Service - The Audit Office (1988).

While approving of the Fire Service's operational proficiency, the Audit Office felt the Commission lacked the information to demonstrate its effectiveness and lines of accountability were not clear. It proposed a review of the structure of the Commission ... with the aim of strengthening its financial and general management skills." and of National Headquarters - recommendations subsequently put into effect.

- A Review of Rural Fire Services in New Zealand. - The breakup of the Forest Service resulted in a division of its former responsibilities, expertise and firefighting resources between its successors. This review recommended that a National Rural Fire Authority be established, and that this be the Fire Service Commission. Amalgamation was not proposed, work of the National Rural Fire Authority was to be carried out by a Rural Fire Division of the New Zealand Fire Service.

Fire Sprinkler Technology: Costs and Benefits. Strategos Consulting Ltd and M\&M Protection Consultants (1989) -

This examined the possibility that extended use of fire sprinklers could reduce Fire Service expenditure. No net economic benefits emerged from costbenefit analyses of sprinkler installation in the cases studied. The conclusion was that it was more economically efficient for fire protection to be provided by a fire suppression service than for individuals and firms to purchase sprinklers. This conclusion has been disputed as it is contrary to the belief, widely held by participants in, and commentators on, the fire protection industry.

The NZ Fire Service Commission and the roles of the non-uniformed and uniformed heads of the Fire Service were restructured over the period 198990 , in accordance with amendments to the Fire Service Act. This was motivated by Government concern to separate policy determination (the

Commission) from service provision (the Fire Service). A more general restructuring of National Headquarters accompanied this change, in an attempt to achieve a structure which reflected the separation, and to achieve greater efficiency.

Below the National Headquarters level, the structure established in 1976 and the roles of the commanders at each level, has changed little.

### 2.3 PERFORMANCE TRENDS

### 2.3.1 The Cost of the Fire Service Since Nationalisation

Increasing
Costs in Real Terms

Increasing
Personnel
Costs

Fire Service expenditure increased from the time of nationalisation - at its peak spending was $\$ 187$ million in 1993 terms, as compared to only $\$ 140$ million in 1978. However, since 1989 spending has been contained in real terms, falling to $\$ 181$ million in June year 1993 - a $3.2 \%$ reduction. A fall from 1992/93 spending of $5 \%$ has been budgeted for in 1993/94.

Expenditure over this period is presented in Figure 2.3. The source of data is Fire Service Annual Reports. Salaries have been deflated using the Prevailing Weekly Wage Index (All Sectors Service Workers) and other costs with the Producers Price Index (Central Govemment).


Personnel costs take up the bulk of the Fire Service's spending, $75 \%$ in 1993. This figure consists of Wages and Salaries ( $61 \%$ of the total) and other personnel and staff costs (13\%). The graph shows the increase in Fire Service spending that occurred with the introduction of the current superannuation scheme. Personnel and other staff costs rose from $4 \%$ to $15 \%$ of total spending from 1987 to 1989 , from $\$ 8.8$ million to $\$ 31$ million.

## Fire Service Staff Numbers

The number of paid staff has shown some net growth since nationalisation. There were 2,514 in June 1993 (source: Personnel Division), compared to 2,402 just after nationalisation in 1977. Operational' staff, (using a broad definition to include Regional Commanders and Executive Officers) are actually lower now than in $1987-2,117$ as compared to 2,131 .

Most of the growth has been in uniformed and non-uniformed administrative and support personnel - up from 271 in 1971 to 397 at present. The numbers of these peaked in 1989, along with the peak in operational staff. The percentage of these is now $15.8 \%$, compared to $14.5 \%$.

Offset against this growth in support personnel would be any reduction in such employment in the old Fire Boards and/or local authorities, and the Department of Internal Affairs but such data is not available. However, nonoperational staff steadily grew beyond the immediate aftermath of nationalisation. The justification of such growth should be two-fold:

- the achievement of greater efficiency of the Service as a whole and effectiveness of those in the front line.
- the carrying out of line functions directly related to changing outputs of the Fire Service, such as the increased emphasis on fire safety.


The Efficiency of Cover Provision by the Fire Service
The efficiency of the Fire Service is the level of service it provides in relation to resources it consumes.

This service level can be considered in two ways:

- In terms of the number of lives and the value of property protected. The Fire Service provides a service even when not at incidents. simply by being in "attendance", ready to respond if needed.
- Numbers of lives saved, injuries reduced, and property value saved at fires and other emergency incidents.

Number of Lives Protected \& Cost per Life Protected

Both approaches are used below in considering how the efficiency of the Fire Service has changed since nationalisation.

The Fire Service recognises three levels of population it protects: those living within urban fire districts, those in rural areas but within 20 minutes travel of urban districts, and those in more remote rural locations.

Focusing on the first group, population grew from around 2.75 million in 1981 to 2.96 million in 1991. The cost of the Service per life protected over this time grew from $\$ 51$ per life in 1981 to $\$ 62$ per life in 1991 (Figure 2.5). At 1993/94, budget spending per life protected will have fallen back to around $\$ 58$. On a per household basis, the cost of protection rose from $\$ 153 /$ household in 1981 to $\$ 186$ in 1991, and will be $\$ 174$ under the 1993/94 budget.
(Protected population and household figures for 1991 are approximations only. Planning \& Review are currently engaged in a project that will provide precise figures on populations in Fire Districts.)


Value of
Property
Protected \& Costper \$ Value

Over the history of the NZ Fire Service, the value of property protected increased from $\$ 16,405$ million in 1977 to $\$ 121,703$ million in 1993. in nominal terms an increase of $642 \%$. Fire Service sperding increased from $\$ 29$ million to $\$ 181$ million - a somewhat lower $521 \%$ incease.

The value of property protected per dollar spent increased from $\$ 583$ in 1977 to $\$ 672$ in 1993 (Figure 2.6). On this basis, the efficiency of the Fire Service was higher in the mid-1980s, but this is largely a function of the property bubble of the period.

Govemment valuation of improvements are used here as the measure of property values.


## Number of Incidents Attended

The number of incidents (inclusive of false alarms) attended by the NZ Fire Service have ranged between 42,000 and 48,000 per annum since nationalisation. No downward trend is evident in total incidents presented in Figure 2.7 since 1977.

There is anecdotal evidence of considerable under-reporting of incidents in the early years of the Fire Service. Certainly there has been a continuing process of upgrading fire incident reporting since 1976. The major milestones in this, which must be considered in analysis of incident data over time are:
the introduction of the Fire Incident Reporting System (FIRS) in 1981, based on an America model which introduced identification of hazardous substance incidents and has been adopted by many countries.

* the introduction of a computerised system in 1986.
- a phased upgrading of FIRS, the first phase of which became operational at the beginning of 1993.

With this in mind, of most significance in Figure 2.7 is the decline in total incidents from 47,800 in June year 1986 to 42,800 in June year 1993, a decrease of $10.3 \%$. The fall in false alarms, particularly since the peak of 18,100 in 1989/90 suggests that the Fire Service's policy of charging for repeated false alarms due to equipment malfunction has had some success in reducing false alarms.

Cost per
Incident Attended

Fires by Property Use: Commercial, Residential etc

Total emergency incidents (ie exclusive of false alarms) fell from 30,400 in 1985/86 to 27,500 in 1992/93 - a $11.8 \%$ fall. Fire incidents remained constant over this time at around 19,000.


Note: There have been changes in the way fires which have been reported to the Fire Service but have not constituted emergencies have been treated for statistical purposes. Over most of the history of the Fire Service these were classified as false alarms (good intent), but current policy is to count these as fires. The data here uses the earlier approach for greater consistency over the full time series and because it supports a clearer separation of Fire Service activity between "emergency" and "false alarm" incidents.

Figure 2.8 presents the average cost (in real terms) per emergency incident (ie all incidents less false alarms) attended over the history of the Fire Service. This shows an increase from around $\$ 4,500$ per incident in 1977 to $\$ 6,600$ in 1992/93. Cost per incident in recent years has remained constant, with the fall in real spending noted previously being paralleled by a fall in incidents.

One of the equity issues (to be discussed in Section 2.7) is the contribution of commerce and households to the Fire Service's funding versus the use they make of the Fire Service. A definitive answer to this is beyond the terms of reference of this review, but we have examined the demands made in terms of fires attended by three broad sectors - residential, commercial and institutional (ie buildings in public ownership).

Figures 2.9 and 2.10 focus on fixed property fires. Data is from a FIRS run, carried out to the Independent Review Team's specifications. These fires have increased over recent years - 7,600 in 1992, up $23 \%$ from 6,179 in 1986.



Figure 2.10 illustrates the shares the sectors have of property fires over the period 1986-93. This shows a decreasing share of commercial property fires - now $29 \%$ of the total compared to $31 \%$ in 1986. This fall in share has been due more to a relative increase in institutional fires and other fixed property fires than to any increase in share of residential fires (around $48 \%$ of the total through most of this period).


## 2.3 .5

Lives Lost and Saved

## Trends in Effectiveness of the Fire Service

Fatalities in fires attended by the Fire Service are plotted in Figure 2.11. Also shown in three-year moving average of these, in order to clarify trends in the data.

Fatalities appear to have been in decline in the eariy 1980s, but this trend reversed in the mid-80s. However, since a peak of 49 fatalities in 1986 a downward trend is evident, with 1992 fatalities being 31.


Care is needed in attributing statistical movements in fatalities or property losses to the effectiveness or otherwise of the Fire Service. According to Cropp (1991), $51 \%$ of victims were probably sleeping before the fire so the fatality is due to excessive detection time, rather than the response of the Fire Service. However, the evidence here is that there is a prima facie case that a reduction in fire fatalities has been achieved. Whether this is due to the Fire Service's urban fire protection efforts, its fire safety activities, or other factors, it is not possible to say on available evidence.

Recorded injuries to both firefighters and the public increased over the history of the Fire Service (Figure 2.12). It is difficult to be sure whether this is a real increase, or a function of more comprehensive recording of injuries.

Much of the Fire Service effort at national standardisation of equipment and operating procedures had been designed to increase both the safety and effectiveness of firefighters at the fireground It is not demonstrable on the evidence here that the first has been achieved. However, chronic respiratory and other problems resulting from exposure to smoke and fumes - not recorded in these statistics - has been reduced through the obligatory use of breathing apparatus during intemal firefighting.

As well as protecting the health of firefighters, breathing apparatus can make them more effective. Rather than charge in (blind and coughing) with large capacity deliveries and flooding a building, a modem firefighter can enter a structure, take stock, and put the minimum amount of water where it is needed most. That is, they can deliver a higher quality product"than was possible in the past. Search and rescue of persons reported is also facilitated by breathing apparatus. Statistical evidence for this increase in quality is considered next.

\% of Property Lost/Saved in Fires Over Time

On their FIRS forms, firefighters record a estimate of the percentage of damage to the property. In recent years this has been lumed around" in Fire Service reports and become a measure of the percentage of the structure saved. The percentage of fires with greater than $90 \%$ of the structure saved is presented in Figure 2.13

An upward trend in this measure of performance has occurred since 1988. and suggests that the Fire Service has become more effective in recent years. However, the evidence is not conclusive and the most recent figure ( $65.4 \%$ of structure fires) is little better than that of 1987 ( $64.7 \%$ ).

Figure 2.13 Percent of Fires with Greater than 90\% of Property Saved


## 2.4

### 2.4.1

Level of protection in the regions

Cost of
Providing Protection and use of Volunteers

## INTER-REGIONAL COMPARISONS

## Protection Efficiency Comparisons Between the Regions

The level of protection purchased in each of the six regions is illustrated in Figure 2.14. This presents lives and property protected per dollar of spending (ie gross operating expenditure) in each region. The former is measured by lives protected per $\$ 100,000$ of spending, and the latter as dollars of property value (improvements only) protected per dollar of spending.

On both measures, Hamilton region appears to provide the best value for money" 2,590 lives protected per $\$ 100,000$ of spending, and $\$ 1,147$ of value of improvements protected per dollar of spending. Other regions providing above average"value are Auckland and christchurch (the latter in terms of lives protected only). At the other extreme, Dunedin provides the lowest value for money - 1,400 lives protected per $\$ 100,000$ of spending and $\$ 390$ in property value protected per dollar of spending. Wellington also provides "below average" protection value for money.


Note Regional spending here covers only spending of the region itself - no attempt has been made to allocate National Headquarters "overhead" over the regions so the average regional ratio is different from the national ratio in Figure 2.5

Numbers of volunteers and permanent firefighters in each region are shown in Figure 2.2. In Figure 2.15, volunteers are shown as a percentage of total firefighters, and compared to the cost of providing protection to life.

There is considerable variation in the relative proportion of permanents and volunteers between the regions; volunteers comprise $56 \%$ of the total in Wellington, but as much as $87 \%$ in Hamilton.


An obvious explanation for the variation in value for money protection between the regions is their relative dependence on permanents and volunteers. Hamilton makes the highest use of volunteers and provides the best value for money: but Dunedin also has a large proportion of volunteers. Further explanation comes from considering the ratio of permanently manned posts to population; in Dunedin this is 5,400 per post, and in Hamilton it is 10,700 . Wellington also has the lowest population cover per Minimum Shift Manning post ie 4430.

## 2.4 .2

Distribution of Incidents

## Incidents Attended by Region

Figure 2.16 shows the regional workloads ie attendance at emergency incidents (total incidents less false alarms). Auckland, with 8,000 emergency incidents in the year to June 1993 had a $29 \%$ share; Dunedin, with 3,100 , an $11 \%$ share. The incidents are broken down by the type of station that first attended the incidents, as an indication of the respective workloads of permanents and volunteers in the regions.

Only the type of the first attending station is recorded in FIRS - occasions when volunteers, for example, attend an incident in support of a first-arriving permanent brigade are not recorded.

In Figure 2.16 a distinction is made between composite stations and permanently manned stations; however, in most cases incidents are attended first by the permanent firefighters at composite stations.

In Auckland, $77 \%$ of incidents are attended first by a permanent or composite station; in Wellington this share is $75 \%$. The utilisation of volunteers is highest in Dunedin ( $53 \%$ of incidents $\equiv$ E.Ended first by volunteers, followed by Christchurch and Hamilton ( $51 \%$ firs by volunteers).

Workloads of Permanents and Volunteers


Estimates of the workloads of permanent firefighters and volunteers are illustrated in Figure 2.17. This presents estimates of the number of occasions a firefighter will be in the first responding appliance to an emergency incident, Total incidents attended per individual per year will be considerably higher.

The workload of the permanent firefighter, and thus operational experience, is much higher on average than for his/her volunteer counterpart. Hamilton permanent firefighters are the busiest by this definition - attending 48 emergency incidents per year on the first appliance. In contrast, the figure for volunteers in that region is 6.4. Wellington's volunteers would be the busiest - 7.8 emergency incidents in first appliance - and its permanents the least busy - 33.1 incidents on the first appliance.

### 2.4.3

Inter-regional Variation in Staft Costs

Inter-Regional Comparison of Staff Costs
The variation in operational firefighter wage costs per permanently manned post is illustrated in Figure 2.18. There is some variation in basic wage costs, with the region with the highest cost $\$ 188,000$ per Minium Shift Manning post in Dunedin being $5 \%$ above the national average of $\$ 179,000$ and the lowest, Auckland, being $2.5 \%$ below the average.

There is much more variation in "vertime" payments (where this includes pay for extra shifts, callouts, and true overtime). The national average is $\$ 26,500$ per minimum shift manning. The lowest overtime cost is $\$ 20,400$ per post in Dunedin ( $23 \%$ below the national average), and the highest is $\$ 42,600$ per post in Hamilton ( $61 \%$ above).


The national average combined wage cost is $\$ 205,400$ per post, and the regional range is from Auckland at $\$ 198,900$ ( $3.2 \%$ below the national average) to $\$ 221,000(7.6 \%)$ in Hamilton.

On the face of this, it appears that Hamilton's overtime wage costs are excessive. This is in part a function of a low manning ratio, and also because of a higher use of callouts than in other regions. Hamilton has fewer permanently manned posts in relation to population than other regions and a high "value for money" in protection.

Station cost and productivity;
Permanent and
Volunteer
Stations In
Wellington

Effectiveness of Permanents and Volunteers by Region

Wellington District's Resource Management Analysis and Strategic Plan. presents data that supports the view that volunteers give better value for money. The annual cost of operating each of the Districts stations is given in the report. A single pump, permanently manned station, Khandallah, is costed at $\$ 958,000$ per year, whereas a single pump volunteer station, Silverstream, costs only $\$ 62,000$ - only $6.5 \%$ of the permanently manned station.

Khandallah attended only 52 fires per annum on average between 1988 and 1992 (as the first responding appliance, in its primary response zone), compared to Silverstream's 25 . The average cost per fire was $\$ 18,400$ for Khandallah and $\$ 2,500$ in Silverstream - the latter being only $13 \%$ of the former. Cost per fire in a relatively busy composite station - Petone - lay between these extremes, at $\$ 7,600$ per incident.

This "value for money"comparison is only wholly valid if volunteers provide the same level of protection - the same effectiveness - as permanent firefighters. This issue is examined next.

The two measures used by the Fire Service to assess its effectiveness in fire suppression activity is attainment of the appliance arrival time criteria Standards of Fire Cover and the percentage of structure saved through Fire Service action.

Figure 2.19 presents the average response time of first appliance to fires (the first appliance attendance time is considered to be a crucial variable for effective firefighting), and Figure 2.20 the percentage of occasions with greater than $90 \%$ of the structure saved. The data in the figures are for a subset of structure fires (in June year 1993) in which the fire has attacked more than just some distinct machine or item of furniture etc (total number of these 3,597 ). Only fires in urban fire districts are included, exposure fires are excluded.

The average first appliance arrival time for permanent brigades to these fires was 5.5 minutes, ranging from 4.9 minutes in Palmerston North and Dunedin to 6 minutes in Hamilton. These are generally less than the average of 6.5 minutes achieved by volunteer brigades (ranging from 5.6 minutes in Dunedin to 8.3 minutes in Auckland).

Permanent brigades saved $90 \%$ or more of the structure in $69 \%$ of these fires, ranging from $64 \%$ in Christchurch to $71 \%$ in Auckland. The save rate" of volunteers is somewhat inferior - with $90 \%$ of the structure being saved on $56 \%$ of fires - from a high of $62 \%$ in Wellington to $54 \%$ in Hamilton.

This analysis suggests that while extensive use of volunteers is essential in providing cover at low cost, the quality of this cover is demonstrably lower than that provided by permanent firefighters.

Figure 2.19 Average First Appliance Arrival Times to Structure Fires. June Year 1993


Figure 2.20 Percentage of Structure Fires Greater the $90 \%$ of Property Saved


## 2.5

2.5.1

Public Satisfaction
Firefighters are admired by the public. They are consistently the group who, in Heylen polling, the public has closest to "Full Trust and Confidence"in. In 1992, only the Ambulance services were regarded more highly by the public.

There also appears to be high customer satisfaction in the service provided by firefighters. Among the Fire Incident clients surveyed by the Fire Service in late 1992, $83 \%$ of respondents felt the Firefighters dealt with their fire in an "organised, efficient, manner".

International Comparisons
Table 2.2 compares the cost of Fire Service provision in New Zealand with a number of European countries. Comparison is firstly on the basis of cost of the fire protection as a percentage of GDP and secondly on a per capita basis.

Table 2.2 Cost of Fire Service Provision

| Country | Cost/GDP (\%) | \$NZ/Capita |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| New Zealand | 0.24 | 52 |  |  |  |
| Denmark | 0.07 | 29 |  |  |  |
| Finland | 0.40 | 104 |  |  |  |
| France |  | 69 |  |  |  |
| Germany |  | 31 |  |  |  |
| Greece |  | 57 |  |  |  |
| Ireland | 0.03 | 43 |  |  |  |
| Netherlands |  | 37 |  |  |  |
| Norway |  | 55 |  |  |  |
| Sweden | 0.14 | 81 |  |  |  |
| United Kingdom | 0.23 | 55 |  |  |  |
| Source: CTIF The Fire Service or Europe (1992) |  |  |  | 0.20 |  |

Source: CTIF The Fire Serice of Europe (1992)
The cost of the New Zealand service is quite close to that of the United Kingdom - being somewhat higher as a proportion of GDP, and slightly less costly in relation to population.

The efficiency of fire protection is substantially higher in Denmark(with a major private fire protection provider, see box below), Germany (which makes extensive use of volunteers who serve in Fire brigades as an altemative to military service) and Netherlands. The Dutch approach to operational planning is discussed in Section 6.6.6

[^1]
### 2.6 RECENT PERFORMANCE RESULTS

4 The cost of operating the Fire Service has risen since nationalisation.

- Much of this increase can be explained by real increases in remuneration (including superannuation) of operational firefighters and increasing non-operational staff. (Increases in responsibility, such as rural fire, are another but minor contributor).
- The value of property protected by the Fire Service has increased at a faster rate than the cost of the service so in this sense the Service's productivity has improved.
- However, the cost per life protected has risen slightly.
* In terms of total calls, there has been little change on the demands on the Fire Service. However, the number of emergency incidents attended by the Fire Service has fallen over the past seven years.
- This fall in emergencies coupled to increasing costs has meant a marked increase in cost per incident attended so in this sense the "efficiency" of the Fire Service has fallen.

4 As fire prevention is also a requirement of the Fire Service any fall in fire incidence could be interpreted as a indicator of success in this function.

- The quality of service provided by the Fire Service has improved. It is more effective at preventing fire, and in minimising loss of life and property damage in fires that do occur.
* There are substantial regional variations in the efficiency with which cover is provided. Some of the reasons for this variation can be traced back to pre-nationalisation days, when some cities chose to provide higher levels of cover than others. Wellington and Dunedin in particular appear to be well endowed with permanent firefighter posts in relation to their populations.

Volunteers, through their free provision of labour, enable the Fire Service to provide reasonable cover where it would otherwise be unavailable. The cost of Volunteer Stations per fire is only around $20 \%$ of permanent and composite stations, on Wellington evidence.

* Volunteers ,however, on average save less property per incident attended than permanent firefighters as a result of their longer tumout time, shorter time spent in training, different equipment and generally less experience attending fires.
- Variations in wage cost of supporting a Minimum Shift Manning post are due more to differing levels of extra shifts, overtime and callouts than base wage costs.
* New Zealand's standards of fire cover and cost of fire protection are on a par with other developed countries
2.7
2.7.1 External

Popularity

Equity

Prevention
Rather than
Cure
Wider
Emergency
Management

Perceived
Inefficiencies accidents. suppression. Boards.

## PRESSURES FOR CHANGE

Many of the questions asked about the Fire Service today are the same as those that provided the impetus for change in the mid 1970s. The reforms of 1990 have not ended the pressures on the Fire Service for change and. with the passing of time, these pressures have continued to build.

Pressure is being applied from both external and internal sources.

The public and allied services recognise the capabilities and versatility of firefighters and this has led to increasing expectations for the Fire Service to provide wider, non-fire related services such as rescues at motor vehicle

Other extemal interest groups, such as rural interests, and commercial building or factory owners are concerned with equity of service levels in relation to levy payments made. For example, since nationalisation large metropolitan centres have faced a slow-down in the expenditure on their fire brigades without commensurate reduction in levy contributions, as those of smaller centres have caught up. Pressure is mounting for these apparent inequities to be addressed.

Pressure has increased for the Fire Service to place greater emphasis on prevention of fire through promotion of fire safety rather than the cure of fire

There is a growing community belief that integrated emergency management is required and pressure is building for the Fire Service to link, and in some quatters merge, with allied services such as Ambulance

While there is widespread appreciation of the quality of firefighting and other emergency services provided by the Fire Service (as evidenced by customer surveys), there is growing dissatisfaction amongst some extemal interest groups regarding its cost. There is a perception that the Fire Service is inefficient and overly bureaucratic. Having avoided the wave of reforms that swept through most of the public sector over the last five years, the Fire Service now is seen by some as outmoded. Suggested solutions to increase cost consciousness and responsiveness to user demand have ranged from externally imposed budget constraints to privatisation.
Extemal Review Sought

While many of these pressures may be contradictory and counter each other, their collective intensity on the Fire Service has culminated in public debate whether there should be a full extemal review of the Service including its role, funding base and legislative framework.

## 2.7 .2

## Internal

Unions \&
Associations

Centralisation

Move to
Modemisation

Unions and associations of Fire Service personnel have applied constant pressure to improve employment conditions of firefighters at all ranks in terms of income, workplace safety and working conditions. The tempo of change has been set by annual wage round and contract negotiations and has permeated throughout the system from the standard operating procedures to the rank structure.

Reaction to forces of centralisation accompanying the large changes heralded with nationalisation and the creation of the Chief Executive's position has created pressure. The dissemination of national standards and procedures through a highly centralised system of command and management has created pressure for conformity. There are signs that pressure is building for decentralisation as firefighters push for greater local responsibilities and discretion.

More recently there has been increasing pressure for management to move in new directions, both in recognition of a need for modemisation and in response to extemal pressures. Change in leadership has seen the introduction of a new philosophy including a more strategic approach, increased devolution of responsibility, clear accountabilities, and a desire for quality improvement throughout the organisation with the introduction of Total Quality Management principles. This has raised expectations within the Fire Service that change is imminent and modemisation will take place.

## 2.7 .3

## Chief Executive's Review

These pressures have culminated in the Chief Executive's Review and the commissioning of the Independent Review Team to provide advice on the effectiveness and efficiency of the Fire Service and National Rural Fire Authority. The principles of reform adopted in the Independent Review are stated in the next chapter and the results of investigations into management systems follow in the chapters thereafter.
3. PHILOSOPHY \& PRINCIPLES OF REFORM


## 3. PHILOSOPHY \& PRINCIPLES OF REFORM

3.1

This review of the New Zealand Fire Service has been conducted against a background of structural change in the public sector. This change has been guided by a set of principles which have been applied consistently to public sector reform including the review of allied sectors such as the New Zealand Police and Defence Forces. These principles involve the role of government, organisational structure and management systems and processes. They may be summarised as follows:

### 3.1.1 The Role of Government

- The nature of the Government's interest in the public sector needs to be clearly identified with respect to its ownership interest (ensuring that its assets are efficiently used and well maintained) and its purchase interest (ensuring that the outputs delivered by govemment agencies are consistent with those the govemment has agreed to purchase).
- The appropriation process should be viewed as a purchase contract through which the Govemment purchases outputs (goods and services) from Government or private agencies in pursuit of the outcomes (impacts on the community) it seeks to achieve.
- There is a need to ensure a high degree of transparency between the nature of the Govemment's objectives and the means or instruments it uses to achieve them.
- Contestability of policy advice and service delivery should be applied to provide performance incentives and the efficient use of resources.
3.1.3


## Structure \& Organisation

- In any sector, agencies offering policy advice should be structurally separated from agencies involved with the provision of services or regulatory and review functions.
- In any organisation complementary functions should be placed together and conflicting functions structurally differentiated.
- Organisations should be designed and safeguards developed to minimise the possibility of policy capture.


## Management Systems \& Processes

- Govemment agencies must have a clear mission and consistent objectives, This implies the need both for objective performance targets and for the avoidance of multiple, conflicting objectives.
- Sanctions and incentives must be provided to ensure optimal accountability for performance. The focus of accountability should rest not with the control of inputs but with the evaluation of outputs.
- Efficiency and effectiveness must be achieved in all aspects of resource management.
- Managers should have the freedom to manage and, in particular, to make resource allocation and staffing decisions which enable the most efficient achievement of outputs.
- All management systems should contain rewards and sanctions aimed at encouraging high performance.
- Management control in government agencies should be devolved to the lowest practicable level and flat management structures created.
- Govemment agencies should develop an increased customer orientation.
- A higher value should be placed on innovation and productive change than on the unnecessary maintenance of tradition.
- Effectiveness and efficiency will be maximised only if a flexible public sector labour market is established.

While the IRT is in general agreement with these principles, it has regarded them as a framework for evaluation and judgement rather than a preemptive prescription for structural and management reform. The IRT has also been influenced by a number of strategic, planning and management issues and related considerations arising from the nature of the business in which the New Zealand Fire Service is engaged (see section 3.5 below).

## MISSION, CORPORATE OBJECTIVES \& CORE ACTIVITIES

A mission statement should establish the basic purpose, direction and orientation of an organisation and provide a positive framework within which its corporate goals and core business can be developed. The Service's present mission, as presented in the 1993/94 Corporate Plan, is expressed in extremely broad terms:
"To serve the community by protecting life and wellbeing, property and the environment from the effects of fire and other dangers."

While progress has been made in the 1993/94 corporate plan in developing a detailed statement of outputs and performance measures for Fire Service activities, it nevertheless appears that:

* the Fire Service's mission and outputs have been constructed to provide a mandate for its existing activities rather than to create a strategic focus for organisational change and development; and
* the outputs of the Service have been conceived in terms of some generalised notion of public good rather than in relation to the differing needs of specific clients.

The mission statement therefore depends on the comfortable assumption that the Service's existing activities represent the accumulation over time of all those elements required to provide an adequate response to a generalised level of demand based on broad public expectations.

The IRT does not believe this represents an adequate basis for determining the purpose, direction and strategic orientation of the Fire Service. It also questions the utility of basing policy formulation on some generalised notion of demand. Public expectations are seldom unitary but instead represent the differing and conflicting interests of interest groups. Unless they are regularly renewed and tested against specific market needs, corporate objectives may represent little other than 'congealed practice': the accumulation of decades of conventional wisdom. Priorities are often determined on the basis of the values inherent in an organisation's culture rather than on a rigorous analysis of customer needs. Current business activities may be the result of incrementalism and strategic drift rather than conscious policy choice and strategic direction setting.

The IRT has concluded that all these generalisations apply, to a greater or lesser extent, to the current activities of the Fire Service. There is an immediate need to determine what constitutes the core businesses of the Fire Service. There is an equally urgent need to develop corporate goals which represent a definition of future intention rather than a rationalisation of past practice. Finally, there is a need for a fresh mission and strategy statement which addresses not just what the Fire Service hopes to achieve, but how its intentions will be realised and how it should be positioned strategically in relation to the conflicting interests of its interest groups.

### 3.3 PURCHASER \& PROVIDERS

Since 1987 the New Zealand Treasury and State Services Commission have argued that 'structural reform can reduce the problem of intemal policy capture' through the separation in different agencies, of responsibility for the provision of policy advice, regulatory and funding activities, and operational activity'.

In the case of the New Zealand Fire Service, regulatory, funding and operational activities are currently combined within a single organisation. The Independent Review Team generally accepts that there are strong arguments for moving towards an organisational model for the service in which the following functions are separately identified:

- the policy advisory function through which the govemment determines the outcomes and outputs it requires in relation to fire services;
the purchase of fire safety and suppression services from competing providers; and
the operational delivery of such services.


### 3.4 MANAGEMENT \& ACCOUNTABILITY

The IRT also accepts the need to introduce into a restructured New Zealand Fire Service management systems and processes which will ensure:

- a clear delineation between governance and management functions:
- a clear understanding of the differing styles of management needed for "business" management and operational command management;
a clear specification of objectives and performance requirements within all areas of the organisation;
a management system based on accountability for results;
systematic corporate and business planning processes, supported by appropriate research, which engage all relevant management expertise and provide the long-term context for operational decisions regarding budgeting, capital investment, service provision and human resource development;
improved systems of financial reporting and control;
performance-based remuneration and promotion policies:
the delegation to managers of the authority required to enable them to achieve the most efficient and effective results:
an industrial relations regime and conditions of service which more fully reflect current standards and practice within the public sector; and
a positive and innovative organisational culture which is appropriate to the redefined purposes of the Fire Service.


### 3.5 INDEPENDENT REVIEW TEAM'S PHILOSOPHIES \& PRINCIPLES

While the Independent Review Team generally accepts the principles which have guided public sector reforms in the past decade, it believes the precise nature of the change contemplated for the Fire Service needs to take into account the particular characteristics of its work and the nature of its operating environment. In developing its recommendations, the IRT has therefore been influenced by the following considerations.

### 3.5.1 Purchaser/Provider Split

While there are clear theoretical advantages in separating policy and purchasing functions from service delivery functions, any Fire Service policy advice must be based on what is operationally achievable. There is therefore, a necessary connection between policy advice and operational activity which suggests the need for effective communication links between these functions.

### 3.5.2

## Policy Ownership

The separation of policy and operational functions represents an administrative device to reduce the possibility of provider capture of the policy process. However, other issues of policy ownership cannot be addressed simply through such structural change. While the activities of the Fire Service confer benefits on a wide range of interest groups, it is frequently argued that its costs are charged disproportionately to a narrow range of clients. Such arguments fail to take sufficient account of the unexpressed cost of voluntary effort in maintaining a vast range of fire services. This can be seen as the community's contribution to the maintenance of public safety. In this complex operating environment, where costs and benefits accrue separately and many remain unaccounted, there is a need to ensure that a restructured Fire Service is responsive to the views of all its stakeholders whether their interest in the development of fire services is financial or non-financial. Failure to do so would raise the possibility of undue professional or ideological influence being brought to bear by clients on the Service's policy processes. Any future organisational arrangements must therefore be capable not only of holding these stakeholder interests in balance but also of hamessing their contribution to achieve the Fire Service's corporate purposes.

## 3.5 .3

## Competition \& Community Service

The IRT also believes that any future organisational options for the reform of the New Zealand Fire Service must take into account:

- the extent to which competition is possible and desirable as a means of promoting efficiency and effectiveness;
- the extent to which support functions (storage, property management, procurement, training) should be either managed as separate cost centres or contracted out; and
* the means by which the ethic of community service can be maintained as a central value of the Fire Service.


## 4. PROPOSED FIRE SERVICE STRUCTURE



## 4. PROPOSED FIRE SERVICE STRUCTURE

## 4.1 <br> STRENGTHS \& WEAKNESSES OF CURRENT NEW ZEALAND FIRE SERVICE STRUCTURE

Few aspects of the organisation and management of the present Fire Service exemplify the principles outlined in the previous Chapter. The structural change which has improved the effectiveness and efficiency of other public sector agencies over the past ten years has had little impact on its structure, organisation, management systems and processes.

### 4.1.1

4.1.2
4.1.3

Transparency
While detailed consideration of the funding of the Fire Service falls outside the IRT's brief, it is apparent that there is a lack of transparency regarding the Government's objectives in purchasing outputs from the Fire Service and the financial mechanisms it employs to fund this purchase.

## Structure and Organisation

Figure 4.1 shows diagrammatically the primary structural elements of the present Fire Service.


From this it is apparent that policy advice, review, regulatory and operational functions are contained within a single organisation rather than being structurally differentiated. This has resulted in a situation in which the Commission's policies have been unduly influenced by the service providers, and where no adequate independent source of policy advice is available to the Minister. As one submission expressed the situation:
*... what we've ended up with ... since nationalisation ... is a Fire Service run by permanent firefighters for permanent firefighters."
4.1.4 Lack of Alignment Between Organisational Structure and Core Businesses

The rationalisation of public sector management in recent years has been characterised by the:

- separation of service/output definition and choices from delivery of services and outputs;
- identification and costing of the primary outputs of govemment agencies;
* alignment of organisational structures with these key outputs through the establishment of functionally based organisational divisions which operate as core business units; and
- identification and costing of those intermediate outputs produced by intemal services such as planning, finance, administration and personnel, and the development of integrated corporate service units to support the production of outputs of core businesses.

Figure 4.2 shows the present organisational structure and reporting lines of the National Headquarters of the New Zealand Fire Service.


This structure clearly demonstrates:

- a lack of alignment between organisation structure and core business outputs:
- fragmentation rather than integration of support service functions:
- an inconsistent basis for job definition;
- an impractically broad span of control; and
- excess layers of management structure.

Issues of organisational design are further complicated by the spatial differentiation of the Fire Service into regions, areas and districts in which core business activities also lack adequate definition and effective performance evaluation.

## Conflict and Confusion Between Management and Command Structures

These structural contradictions are compounded by the conflict and confusion which exists between the present management and command structure.

The command structure is expressed at national, regional, area and district level and is enshrined in the Fire Service's enabling legislation. The rationale for its existence is primarily operational and based on military command principles including:

- the need for a unified command authority, strict hierarchies and narrow spans of control to ensure an effectively disciplined force;
a rank structure that enables officers to assume command of operations of varying size; and
the ability to marshal a firefighting force into units of varying size to deal with problems of increasing risk and severity.

As a consequence, the regional, area and district levels of the Fire Service are deemed to be operational units and are controlled by the command hierarchy rather than by the management structure.

However:

* Surveys conducted by the IRT reveal that 70\% of the time spent by National, Regional and Area Commanders, and the 67 Executive Officers that support their activities is occupied by management tasks.
- Since 1974 no incident has occurred which has required the National Commander to assume operational control of firefighting activity (although advice has been provided) and Regional Commanders have taken control of incidents only on very rare occasions.

Submissions suggest that direct operational control by Regional Commanders:
*... is more the exception than the rule."
This command function has tended to be taken up by Regional Commanders:
*... until relieved by [an] Area Commander whose arrival had been delayed."
or
*... in the Control Room or Command Unit where resources have been required for inter-region movement of appliances, crews or equipment."

However, the main role of Regional Commander was said to involve:
".. the effective operational management of the Region,"

- In practice, Chief Fire Officers (who have authority at a District level) have demonstrated over the past twenty years their competence to handle operational command of the most severe and high risk incidents.

This suggests that the command structure at an area, regional and national level represents little other than a phantom management structure. The significance of these management roles therefore needs to be reassessed as a necessary part of the organisational review, along with the efficiency of the present operational command arrangements.

Identification of Intemal Services as Separate Cost Centres
At present the true cost of support functions such as storage, property management, procurement and training has not been accurately identified. This costing exercise needs to be completed as a first step in determining whether such services can and should be operated internally on a basis of competitive neutrality (and if so whether they should be centralised or decentralised functions), or contracted out to private providers.

## 4.2

4.2.1

### 4.2.2

A New Role for National Headquarters?
While no detailed prescription was provided regarding the future role of National Headquatters a reasonably clear picture emerged of what was preferred within the Fire Service. The IRT was told that
*... over the years National Headquarters has methodically centralised most authority and many functions to the point that people without any expertise or knowledge of the operations or operational needs of a fire brigade are routinely making important operational decisions, issuing directives and purchasing operational equipment. This usually occurs without any effective reference to the people expected to produce the end product:"

There was a call for
-... a significantly restructured, compact National Headquarters which should return it to a role of support to the Fire Service rather than the present bureaucratic centre"

Other proposals included:

- Retum National Headquarters to a policy heaćquarters;
- Downsize National Headquarters and redistribute their departments around the regions.
- Regionalise the command structure.

4 Disband the Commission and delegate authonty to the Regions.

## Empower Area Commanders in Operational Matters

Of the survey responses received $19 \%$ advocated that operational control should be vested in Area Commanders. A strong insistence was evident that any new structures should
*... allow the professional firefighting wing of the service to plan, develop, control, coordinate and command the operational and technical aspects of the service, including uniformed personnel, unencumbered by minor clerical, accounting and servicing duties."

Other typical comments included;

- Retum authority to the Area Commanders to run the operational areas of the service as this is where the core business of fire suppression and fire prevention is conducted.
* Give Area Commanders more authority and responsibility and let them run their Area as a manager should.
- Let field commanders get on with running their brigades instead of being burdened by bureaucratic objectives.
- Give Chief Fire Officers total responsibility and accountability for their patch and the resources needed to run it effectively and efficiently.
- Restore the 'right to manage' to Area Commanders and ensure proper delegations and accountability.
- Delegate power and authority directly from National Headquarters to commanders in Areas so that they can manage the Areas they are responsible for,


### 4.2.4 Reform the Regional Structure

Of those surveyed, $16 \%$ of respondents drew attention to the regional 'bottleneck' which frustrated communication between Area Commanders and National Headquarters. This perception of the ineffectiveness of the regional command structure suggested to some that the regional structure should be eliminated. Typical comments included:

* Remove the Regional structure which was necessary in 1976 but by 1985 was becoming a dinosaur.
- Either amalgamate regions to number three or disestablish the post of Regional Commander altogether.
- Command should stop at Area or District level; there is no need whatsoever to include Regions or National Headquarters.
Remove Regional Commanders thus giving Area Commander direct access to decision-makers at National Headquarters.

However, greater support existed for retaining a slimmed down regional structure (perhaps a total of three regions) and redefining its relationship with National Headquarters and Areas. A large variety of proposals were raised including:

- Downsize number of Regions.
- Introduce Regional direction and control of policy.
- Regions should be the focal point for all Fire Service activities, coordinating the objectives and resources through the Areas and Districts.
- Control the Fire Service at a Regional level.
- Turn the organisation into a federal structure. Allow Areas to operate without bureaucratic intervention.
* Lessen the number of Regions (Commanders) and Areas eg two regions in the North Island and one in the South Island; five areas in North Island and two in South Island.
- Regions and National Headquarters should be restricted to a support role.
- Regional Commanders to be established as auditors of efficiency with small support staff.
- Give authonity to the Regional Commanders for the resources of the Regions. Give the same authority to the Area Commanders to manage the resources of the Area.
4.2.6 Among these diverse proposals were three suggestions which the IRT considered to be particularly interesting.
* To restrict National Headquarters to a policy role and concentrate management of the service at a regional level.

As one submission stated, new regions should be established which were 'separate from operations'. Another elaborated this proposal as follows:
...National Headquarters should be a small group of staff that set policy only and the three regions should operate personnel and resources appropriate to their region ..."

- To create regionally-based Super Brigades.

This would be achieyed by
*... amalgamating the brigades within each existing Region into one Super Brigade. Effectively this removes one level in the hierarchical chain for both administrative and support functions."

To encourage efficiency and effectiveness through competition among redefined regions.

It was strongly argued that:
*... competition between sectors of regions is the only true way to measure performance and to ensure that the most effective and efficient service available is provided."

These and similar comments have been influential in shaping the IRT's views regarding the desirable future structure of the Fire Service.

### 4.3 THE RANK SYSTEM

The IRT was also made aware of deep dissatisfaction with the present rank system. This was evident from interviews with personnel at every level of the Fire Service and within every region; from personal submissions and from survey data.

The IRT's own surveys revealed that $26 \%$ of middle managers perceive an immediate need to flatten both the command structure and the management structure. Responses to the survey proposed an overall reduction in ranks and the abolition of specific positions. Proposals included:

* Operationally, remove any rank (uniformed) above the person holding the title Chief Fire Officer.
* Revise rank structure to include only: Station Officer, Senior Station Officer, Assistant Commander, Commander and Regional Commander.
- Change twelve present ranks to only seven - Chief Executive, Chief Fire Officer, Deputy Chief Fire Officer, Assistant Chief Fire Officer, Divisional Officer, Station Officer and Firefighter.
- Flatten command structure from five groups to three groups (National Headquarters, Areas and Stations). Have all volunteer stations reporting to Area Commanders and Area Commanders to National Headquarters.
- Reduce the number of command levels particularly in large brigades.
- Reduce the number of ranks between the Area Commander and the Senior Station Officer.
- A Chief and Deputy Chief is all you need in any permanent Area Headquarters.
- Senior Station Officer and Divisional Officer ranks are not required. The highest operational watch rank should be Station Officer.
* Removal of Division Officer and Senior Station Officer ranks as well as reducing firefighter ranks, Senior Firefighters can perform the role of Station Officer and Station Officer can run a watch. Divisional Officers are very expensive in the rank structure for little command gain.
Dispense with Assistant Commander in permanent brigades.
Review functions of Divisional Officers and Assistant Commanders.
Review the operational need for the Divisional Officer rank.
Remove either Divisional Officer or Assistant Commander positions.
- Consolidate Divisional Officer/Assistant Commander rank.
- Abolish the rank of Divisional Officer.

The IRT was also reminded that structural reform necessarily entailed a reconsideration of the rank system:
*... since by changing the definitions of Districts, Areas and Regions we would be able to streamline the entire rank structure."

Our recommendations regarding structural reform therefore also address issues of rank.

## 4.4

4.4.1 Drawing on the review principles outlined in Chapter 4 and suggestions identified through interviews, surveys and research, the IRT has identified a number of existing organisational structures which may provide alternative models for the New Zealand Fire Service. Two of these, which we have termed the Police Model and the Defence Model are shown in Figure 4.3


### 4.4.2

The Police Model
In the Police Model the Minister would purchase fire suppression and prevention services from a Fire Commissioner who would act as Chief Executive of a national fire force and be responsible for delivering specified outputs. While this model would achieve a degree of separation between policy determination and operational control its disadvantages are:
the lack of an independent source of policy advice for the Minister,
the lack of any adequate representation of the interests of interest groups;

- the failure to deal in any rigorous way with intemal restructuring issues within the service.


## The Defence Model

In this model a govemment department would be created to assume the policy and purchase role while operational responsibilities would rest with a Chief of the Fire Force. While such a move would ensure that policy advice would not remain the exclusive preserve of the operational agency. the IRT believes it also contains disadvantages:

- as in the Police Model, the interests of interest groups would not be adequately represented;
- as a govemment department, the Fire Ministry would be bound by protocols of confidentiality which are arguably inconsistent with the degree of public accountability required of an agency involved in ensuring public safety:
- the one-on-one relationship between the Ministry and the Commission would, over time, be likely to blur the structural distinction between policy and operational functions producing, albeit informally, a degree of vertical integration between these two functions.


### 4.4.4 The Dual Crown Entity Model - Central Purchase/Centralised Delivery

A third option is provided by the Crown Entity Model, illustrated as Figure 4.4.


In this model an appointed Commission (established, as presently, as a Crown entity) with an independent secretariat would replace the putative Fire Ministry as the policy/purchase agency for fire services, thus ensuring a greater degree of public access to the process and results of policy determination.

Service delivery would rest with a second separate Crown entity with its own controlling board from which the Commission would purchase specified fire suppression, prevention and emergency services. Provision could be made for independent policy advice to be provided to the Minister through a

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servicing department and a interest groups forum could be established which would articulate consumer viewpoints at a national level.

The IRT believes this model would represent the best structural option if a national Fire Service is to be retained. However, the IRT seriously questions whether the retention of a nationally managed fire service operation can be justified on the basis of efficiency and effectiveness.

## 4.4 .5

Limitations of a National Approach
The IRT has been made amply aware of the degree of confusion, frustration and cynicism within the Fire Service which its structural and management deficiencies have produced.

Such issues are also fully documented in the reports from the 861 staff focus groups which have been operating as part of the Chief Executive's Review. While some of these frustrations result from specific structural factors (such as the conflict between management and command structures) others call into question the viability of operating fire services on a centralised basis.

The IRT was repeatedly presented with evidence that the provision of nationally standardised equipment; the imposition of nationally standardised operating procedures; the maintenance of nationally standardised training programmes and the insistence on national standards of cover, manning levels, and conditions of service fail to take sufficient account of the diversity of situations, environments, technical and operational requirements which exist at a regional, area and district level. A management and command system whose primary function is to enforce such national standards thus quickly loses respect and credibility.

Researched and publicly acceptable standards of cover, guaranteed conditions of service, safe and effective equipment and quality training must be available to the restructured Fire Service. The IRT is not convinced that these can be provided or enforced most effectively by a centralised national agency.

Confidence among firefighters in the judgement and competence of management and operational command is likely to be increased in a situation in which they are able to exercise their professional discretion regarding the most effective means of addressing those resourcing, training and operational requirements appropriate to the local and special circumstances with which they deal.

## Regional Fire Enterprises: The Optimum Solution

The IRT believes that the limitations of the national approach could best be overcome by moving to a regional structure. Specifically this would involve:

- retaining at national level a Fire Services Commission, established under new legislation as a Crown entity, whose functions are limited to policy formation and the purchase, monitoring and review of fire and emergency services; and
- concentrating service delivery functions on three independent regional fire enterprises, established as Crown entities under the terms of section $V$ of the Public Finance Act. Each of these regional fire enterprises would be headed by a chief executive, controlled by a board appointed by the Minister and responsible for organising fire suppression, fire safety and emergency services within ten Areas in which Area Commanders are delegated full operational control.

This structure is represented schematically as Figure 4.5.


### 4.4.7 Reasons for Three Regions

The IRT's recommendation of three regions is based on a variety of factors.

- The IRT was unable to discover any convincing rationale for the existence of the six regions as they are currently defined. Changing the regional boundaries will not therefore result in the loss of any natural or necessary advantages inherent in current regional arrangements.
- Advice received from current operational personn=t within the service suggests that a coherent approach to the coordination and development of fire services could be achieved by combining the


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development of fire services could be achieved by combining the present Regions 1 and 2 (currently based on Auciland and Hamitton); Regions 3 and 4 (currently based on Palmerston North and Wellington); and Regions 5 and 6 in the South Is! Ind.

- The establishment of regional business units according to these boundaries would allow economies of scale to be achieved particularly in relation to procurement and the rationalisation of assets and staffing.
- Each region would be comparable in terms of scale and resources. The population per region totals 1.5 million (region 1); 1 million (Region 2) and 1 million (Region 3).
- Each is based on distinctive regional economiss with one primary distribution centre (Auckland, Wellington and Chistchurch) and one secondary distribution centre (Hamilton, Palrerston North and Dunedin).
- The Fire Service firefighters are distributed reasonably evenly among the regions (3645 in Region 1; 3008 in Region 2; End 3785 in Region $3)$.
- The same is true of the capital assets of the serviz.
- This comparability would allow the restructured Fre Commission, as purchasing agency, to develop appropriate indices for measuring the relative cost and effectiveness of the services offered in each of these regions.
- Each region is capable of being subdivided into a sompact number of operational units which may be created by combizing existing Areas as follows:

Region 1 Northem (headquartered in Auckland)
Area $1 \quad$ Auckland (present 1A and 1B)
Area $2 \quad$ Waikato (present 2A)
Area $3 \quad$ Bay of Plenty (present 2B, 2C, 2D, 2E)
Region 2 Central (headquartered in Palmerston North)
Area $1 \quad$ Taranaki/Wanganui (present 3B $\leftrightarrows 3 C$ )
Area 2 East Cape/Hawkes Bay (present $\begin{array}{ll}\text { E and 3D) }\end{array}$
Area $3 \quad$ Menawatu (present 3A)
Area $4 \quad$ Wellington (present 4A and 4B)
Region 3 Southern (headquartered in Christchura)
Area $1 \quad N=$ son/West Coast (present 5D \& $\ddagger$ )
Area $2 \quad$ Canterbury (present 5A \& 5C)
Area $3 \quad$ Otago/Southland (present 6A \& 5E)

- There is a degree of social, economic and geograohic homogeneity within each of these Areas which would allow Ar $E=$ Commanders to make decisions about the differing resources arc equipment and processes required to meet the local and specia circumstances in each place.

4 Reducing the present number of Regional and Area commands by $50 \%$ would achieve considerable savings in management, staff and overheads and create opportunities for asset realisation.

- Commensurate savings would be made by reducing the present number of Regional control rooms from six to three.
- Although large, these Areas would remain accessible by Area Commanders, given contemporary developments in communications technology.
- Area Commanders currently spend only $30 \%$ of their time dealing with operational matters. Doubling the size of the Areas would have the effect of increasing the scale of these operational responsibilities accordingly thereby focusing their professional energies on fire suppression and safety issues rather than peripheral administrative matters.


### 4.4.8 $\quad$ Streamlined Regional Delivery

In the IRT's view, the replacement of a national service delivery agency by three independent Regional Fire Enterprises, would streamline arrangements for the provision of fire suppression, prevention and emergency services and also achieve greater effectiveness. This is because:

4 if policy, purchase and review functions were located within a reconceived Fire Commission, a National Headquarters would effectively duplicate its functions by repurchasing services from its own operational units and ensuring their accountability for performance;
these functions would be best discharged by the Commission itself whose staffing requirements would be unlikely to exceed 40;

- the new regional structure would create discrete strategic business units under effective management control and with provision for regional govemance by representatives of owners and this would ensure greater customer focus;
- a clearer distinction would be established betreen management functions (exercised at a regional level) and command functions (exercised at an Area level and below);
- the reduction in the number of Regions and Areas, and the dissolution of the command structure above the level of Area

Commander would significantly reduce current administrative and staffing levels;

- the establishment of regionally based service delivery agencies would introduce competition and allow the purchase agency to evaluate the relative efficiency and effectiveness of each region;
* the efficiency gains of competition would be maximised if the Fire Commission were to adopt a policy of service purchase on the basis of compulsory competitive tendering, especially for fire safety services where recognised educational and publicity skills lie outside the Fire Service. This principle should also be applied by the chief executives of each Regional fire authority to the provision of intemal services (procurement, training, storage etc); and

4 the dismantling of National Headquarters would also create the opportunity to re-establish certain intemal services as separate regional trading organisations.

### 4.4.9

## New Structures and Ranks

Adopting these new structural arrangements would reduce significantly both the management and command hierarchies of the Fire Service. The IRT believes that a flat structure could be readily achieved within the new Regional Fire Enterprises and sees no need for management structures which contain more than one layer of management between Regional Chief Executive and the operational staff.

A similar flattening of the operational rank structure is also both possible and desirable:

- The IRT was unable to discover, even among long-serving officers, any convincing rationale to explain the relationship between ranks, posts and functions within the Service.

The IRT's own conclusion is that the present over-elaborate command hierarchy has developed as a consequence of relating the rank system to the salary system, thereby requiring new ranks to be invented to correspond with minutely differentiated salary steps.

The IRT believes that a new rank system is required which is based on the following principles:

- equivalence between rank, post and function;
- a common structure for both permanent and volunteer forces.
- We would recommend the adoption of the following command hierarchy:

Area Commander<br>Assistant Area Commander<br>District Commander<br>Station Commander<br>Crew Commander<br>Firefighter

- While this command hierarchy would have collective responsibility for all operational matters, we see the post of Assistant Area Commander being functionally defined with responsibilities for fire either prevention and safety, or fire suppression or fire related emergencies.

In addition, the IRT believes:

- There is a case for introducing up to three grades within each rank to recognise different levels of accountability and responsibility according to the scale of the operational staff controlled and the scope and complexity of fire safety and suppression issues confronted.

4 Should it be considered necessary, following implementation of the new structure, to retain the command functions of National Commander and Regional Commander these responsibilities could be exercised by the most senior of the Area Commanders.

## 4.5 <br> COORDINATION OF EMERGENCY SERVICES

4.5.1 In developing these recommendations regarding the new structure for the Fire Service, the IRT was concerned to create a model which would in future allow for the more effective policy control and coordination of emergency services. In the course of its investigations, the IRT was made aware of:

* the extent to which the Fire Service response to non-fire emergencies overlaps with and complements the work of other emergency services such as the ambulance service;
- the arrangements which have been established for comprehensive cooperation between the Fire Service and Civil Defence in the event of a civil emergency;
- the strategic alliances being developed at Chief Executive level between the vanious emergency services - Police, Ambulance, Civil Defence and the Fire Service;
4.5.2 The IRT believes that moves to rationalise and coordinate these diverse emergency servios are desirable and that the new stuctural arrangements will facilitate such arrangements. In the longer term, the IRT envisages that the reformed Fire Commission, operating as a policy, service purchase and review agency, could expand its brief to take on other emergency services such as Civil Defence and Ambulance. It believes:
this widening of powers would create a strong and effective Emergency Services Commission capable of developing a common policy approach to development across these services and giving effect to these policy directions through the nature of the service purchase agreements it negotiates;
- consideration should be given to aligning the management of emergency services with the regional boundaries proposed for the Fire Service and the control of operations with the proposed Area boundaries; and
- the delivery of emergency services should continue to rest with separate operational agencies, but the development of effective cooperation and coordinated planning among these agencies should be specified in the service performance requirements negotiated by the proposed Emergency Services Commission.


### 4.6 REGIONALISED STRUCTURE WILL LEAD TO NEW MANAGEMENT PROCESSES

4.6.1 The IRT believes that the introduction of a devolved regional structure will provide the best opportunity for reconsidering the basis on which the fire services are managed. The new structure will demand the development of processes and systems that can overcome current management deficiencies, which are a major source of contention within the organisation at present.

Specifically a move towards the regional organisation of the Fire Service will necessitate the development of a new management culture characterised by:

* flatter management structures rather than steep vertical organisations;
- the removal of highly differentiated administrative levels and ranks; which currently appear to provide a refuge for career firefighters who no longer possess operational capability:
- the delegation of operational resourcing and training decisions to those closest to the action;
- encouragement of local initiative in solving local problems rather than obedience in implementing predetermined national solutions; and
- the introduction of improved planning processes and human resource management systems.
4.6.2 The IRT also believes that the development of new Regional Fire Enterprises will create opportunities to ensure that:
- the new structures facilitate objectives, prionities and policies to be set clearly and to be implemented effectively and efficiently;
- there is effective delegation of authority from the Board to each chief executive and from the chief executive to reporting officers;
the lines of communication and accountability between the Boards, and each chief executive to reporting officers are appropriately assigned and inter-related;
* each chief executive separates the policy advisory, management and operational responsibilities; and
- effective planning, policy making and management systems are in process.

The management processes and systems of the presert New Zealand Fire Service satisfy none of these criteria. The following chacters of the report suggest practical ways in which these criteria can be tsed as a basis for designing new systems and processes.

## 4.7

4.7.1 Primary Structure

That the organisation of fire services in New Zealand be based in future on:

- a national Fire Services Commission, established as a Crown entity under new enabling legislation, whose functions are limited to policy formulation and the purchase, monitoring and review of fire and emergency services; and
- three independent regional fire enterprises, each established as a separate Crown entity, whose responsibilities should encompass the business management and operational control of fire and emergency services.
- That new regions be established combining the present Regions 1 Auckland and 2 Hamilton (into the Northem Region); Regions 3 Palmerston North and 4 Wellington (into the Central Region); and, Regions 5 Christchurch and 6 Dunedin (into the Southem Region).

That Regional Headquarters, responsible for the business management of each region, be established in Auckland for Region 1. Palmerston North for Region 2 and Christchurch for Region 3.

- That for the purposes of operational command, the Regions be subdivided into ten Areas as follows:

Region 1
Area 1
Area 2
Area 3
Auckland
Waikato
Bay of Plenty

Region 2
Area 1
Area 2
Area 3
Taranaki/Wanganui
2B/C/D/E

Area 4
Manawatu
$3 B \& 3 C$
egion 3
Area 1
Area 2
Area 3
Nelson/West Coast
5 D \& $5 B$
$\begin{array}{ll}\text { Area 2 Canterbury } & 5 A \& 5 C \\ \text { Area } 3 & \text { Otago/Southand }\end{array}$
$6 A$ \& $6 B$

### 4.7.2

4.7.3 Command Structure and Rank System

- That operational command and control of resourcing and equipment within each of these Regional Fire Enterprises be exercised by Area Commanders controlling brigades in each of the ten redefined Areas.
- That the command and rank system above this level be dissolved, with the proviso that, should it be considered necessary to retain the command functions of National Commander and Regional commander, these responsibilities be assigned among the most senior of the Area Commanders.

That a revised operational rank structure, common to both permanent and volunteer brigades, be established based on the principle of equivalence between rank, post and function, and comprising:

Area Commander
Assistant Area Commander
District Commander
Station Commander
Crew Commander
Firefighter

- That up to three grades within these ranks be introduced to recognise different levels of accountability and responsitility according to the scale of operational staff controlled and the scope and complexity of fire safety and suppression issues within Areas.
- That the Minister note that regionalisation of the Fire Service would allow at some future date the corporatisation of each Regional Fire Enterprise and the transfer of its ownership to local interests on some agreed shareholding basis.
* That the Minister note the possibility, at some future date, of expanding the policy, service purchase and review role of the reformed Fire Service Commission to take on such functions in respect of other emergency services such as the Ambulance and Civil Defence and to fulfil the role of a comprehensive Emergency Services Commission.



## 5. PROPOSED RURAL FIRE STRUCTURE


5. PROPOSED RURAL FIRE STRUCTURE

Consideration of the organisational future of the Fire Service must take into account the role and relationship of both the New Zealand Fire Service and the National Rural Fire Authority. This chapter examines the present organisational structure of the National Rural Fire Authority and recommends modifications.

Following the break-up of the Forest Service and the re-organisation of local govemment in the late 1980s, rural fire protection services were reviewed. As a consequence of this review:

- the New Zealand Fire Service Commission has, from 1 July 1990, as a result of a Ministerial directive and subsequent legislative amendments, assumed the additional role of National Rural Fire Authority;
- the post of National Rural Fire Officer, based in the Fire Service's national headquarters has been established and support staff engaged; and
- Four regional offices of the National Rural Fire Authority were established each staffed by one Regional Rural Fire Officer.
- A system of 19 Rural Fire Coordinating Committees was established. These are responsible for ensuring good coordination of fire prevention, permit and suppression activities and resources between their constituent Rural Fire Authorities. They are a link between the National Rural Fire Authority and the Rural Fire Authorities.

In accordance with its Terms of Reference, the IRT focused on the rural fire management issues within the NZ Fire Services Commission (when acting as the National Rural Fire Authority) and the NZ Fire Service (particularly the National Rural Fire Officer and staff). It was not asked to review the rural fire organisation and management of the Rural Fire Authorities around the country.

The IRT was briefed intensively by the National Rural Fire Officer but confined its extemal consultation to representatives of national rural fire interests in the forestry, farming, conservation, local government and insurance sectors.

The IRT familiarised itself with rural fire practices and issues in meetings with representatives of forest industry and rural fire authorities during a field trip around the Central North Island. It also received several unsolicited submissions from rural fire authorities. During the review, the IRT was made aware that many rural fire interest
groups perceive a lack of equity in the allocation of govemment resources for rural and urban fire protection. The IRT found that many of the views expressed on whether rural fire authorities or the NZ Fire Service should be
responsible for rural fire protection were coloured more by worries about funding than a desire to reorganise rural fire services per se.

As the IRT's terms of reference exclude funding issues, it confined its inquiry to establishing how new structural arrangements within the NZ Fire Service can be developed which will facilitate better access by rural fire interests to resource allocation, policy and decision-making processes.

It anticipated that the fundamental funding issues would be addressed in time by a proposed refocussed Fire Service Commission, and the Government in consultation with rural fire authorities and rural fire interests in the forest, farming, conservation and insurance sectors,

### 5.1 STRENGTHS \& WEAKNESSES OF THE CURRENT RURAL FIRE ORGANISATION

In comparison with the New Zealand Fire Service, the National Rural Fire Authority is based on structures and operating assumptions that are more consistent with the principles of reform which have been applied to public sector restructuring over the past decade.
5.1.1 The functions of the National Rural Fire Authority are to:

- advise on rural fire issues:
- coordinate rural fire control;

4 set and monitor standards through the development of a Rural Fire Management Code of Practice and the provision of training courses for Rural Fire Officers:
4 oversee the approval of rural fire plans; and

- administer the Rural Firefighting Fund.

Within the Fire Service these matters are managed by the National Rural Fire Officer who is based at National Headquarters (assisted by a staff of three) and four regionally based Regional Rural Fire Officers at Hamitton, Palmerston North, Christchurch and Dunedin who provide technical advice to Rural Fire Coordinating Committees and Rural Fire Authorities. The latter are the service providers. However, for administrative convenience these are all regarded as being stationed at National Headquarters.
5.1.2 Rural Fire Authorities are responsible for fire control within defined geographical areas. They fall within three categories:

- State Areas - national parks and Crown land administered by the Department of Conservation and the Ministry of Defence.
- Rural Fire Districts - gazetted areas of land on which rural fire control is the responsibility of a Rural Fire Committee (which may be a district council, city council, the Minister of Defence, the Minister of Conservation, or interested landowners such as forest conners).
- Territorial Areas - which are the responsibility of territorial local authorities such as district councils and city councils.
5.1.3 Any Rural Fire Authority may establish voluntary rural fire forces for fire control purposes. Once these rural fire forces have been registered with the National Rural Fire Officer they are then eligible to apply for assistance in training members with regard to:
- techniques and standards of fire suppression;
- safety, equipment, discipline; and
- other fire measures.

The National Rural Fire Authority also makes grants to Rural Fire Authorities which subsidise to the level of $50 \%$ the cost of acquiring approved firefighting equipment, and $75 \%$ for approved protective clothing.
5.1.4

In practice, rural communities therefore tend to be protected by:

- voluntary rural fire forces maintained by Rural Fire Authorities;
- Fire Parties which are informal and generally operated by the community;
- Defence and industrial brigades operated by the Ministry of Defence and private industry; and
- Department of Conservation and Commercial Forest Owners Fire Teams operated by Rural Fire Authorities.

The New Zealand Fire Service provides fire prevention and suppression services principally to urban areas, with the provisos that:
they do support Fire Brigades' Auxiliary Units to protect communities too small to qualify as urban fire districts;
many urban fire districts are in fact sparsely populated and at the interface of the urban and rural districts, but are guaranteed Fire Service cover for historical reasons.

Each Rural Fire Authority is expected to develop a fire plan which sets out its suppression and prevention strategies. Such plans must be approved by one of 19 Rural Fire Co-ordinating Committees established by the National Rural Fire Officer which comprise the principal Rural Fire Officers of the relevant fire authority and representatives of:

- the Regional Council;
- the NZ Forest Owners Association;
- NZ Federated Farmers;
- the NZ Fire Service; and
* other non-voting co-opted members.

Fire authorities whose fire plans are approved by the relevant co-ordinating committee are then eligible to lodge claims against the Rural Firefighting Fund to partly cover the costs of suppressing fires in their areas. The Fund is administered by the National Rural Fire Authority and resourced from the Fire Service levy and a grant from the Department of Conservation. Rural fire authorities must cover the first $\$ 1000$ of fire fighting costs, plus $5 \%$ of costs above that. No claim can be made for fires with suppression costs of less than $\$ 1000$. In 1990/91 grants were paid out from this fund towards the costs of suppressing 29 major and 32 minor fires; the total grants of $\$ 104,000$ in $1992 / 93$ involved 23 major fires and 30 minor fires.
5.1.6 In addition to the services outlined above, the National Rural Fire Authority has also established a National Rural Fire Advisory Committee to provide advice regarding its policy and programmes. Chaired by the National Rural Fire Officer, this committee comprises representatives from the Department of Conservation, the New Zealand Defence Forces, the New Zealand Fire Service, the Forest Owners Association and the Local Govemment Association.

## DIFFERENCES BETWEEN URBAN \& RURAL FIREFIGHTING

5.2.1

There are a number of features of rural firefighting which make it quite different from the work of the professional urban brigades operated by the New Zealand Fire Service which are focused on the suppression of structural fires. The 1989 Hensley report summarised these features as follows:

* rural fires occur sporadically over an extended area but are highly labour intensive. Large fires require the rapid assembly of equipment and manpower from a wide area. They may move rapidly over the countryside making a satisfactory water supply difficult to provide.
- fires may take days or even weeks to put out. Firefighters work longer hours and therefore logistics (shifts, meals and beds) are important.
- a major fire is like a battle, fought over several dispersed fronts with the mobilisation of large forces. Special tactics and experience are required. Communications and coordination of effort may be critical.
- they depend heavily on volunteers unused to a formal command structure when compared with the Fire Service staff deployed at an urban fire.
- training for the two types of fire control is quite distinct, as is their equipment. Rural firefighting needs cross-country vehicles, long lengths of small cafibre hose and heavy equipment such as bulldozers and aircraft. Urban fire appliances are not designed to operate off the roads."
*No artificial boundaries can be drawn between rural and urban firefighting operations. As well as providing back-up at many rural fires, urban brigades can face forest or scrub fire emergencies within their own gazetted areas.

All the major cities include areas where vegetation fires can and do occur ... and there is a need for urban brigades to be trained in the proper tactics if injuries are to be avoided. Volunteer fire brigades formed to protect buildings in small towns also turn out for vegetation fires ... any reform of rural freefighting should recognise and encourage this convergence. Nevertheless, no useful arrangements can be made which do not recognise the basic differences of approach."
5.2.3 These differences are highlighted in the varying scale and cost to the Fire Commission of urban and rural fire protection services, as illustrated by the following table:

Table 5.1: Urban and Rural Firefighting: - Personnel and Cost.

|  | New Zealand Fire Service Urban Fire Districts | Rural Fire Authorities |
| :---: | :---: | :---: |
| Nto. of Rumal Fire Authories | 265 | 115 |
|  |  |  |
| Paid M, \#n, | 1.900 | - |
| 4 Votur*ary | 7,000 | 8,000* |
| Nationai Headquarters Stef | $100+$ | 8 |
| Cost of Fire Protection Orfints (1993/94) | \$114.8 million | \$14.7 million |

- This total comprises 5,000 employees of Rural Fire Authorities (Department of

Conservation, District Councils and Forest Owners and 3,000 volunteers).

Of the budgeted $\$ 14.7$ million cost of rural fire protection and coordination in 1993/94, only $\$ 1.7$ million is directly included within the budget of Rural Fire-Co-ordination (ie the cost of running the National Rural Fire Authority, including the Rural Fire Fighting Fund). The remainder is the Fire Service's estimate of the cost of its resources used for rural fire protection ie for suppressing fires outside urban fire districts. The total constitutes about $9 \%$ of total Fire Service spending.

However, if the assessed costs of local govemment, private sector, Department of Conservation and Defence contributions to rural fire protection are taken into account, according to the New Zealand Fire Service the annual cost of rural fire suppression would be much higher.

### 5.3 APPLICATION OF THE PRINCIPLES OF REFORM

When the principles of reform adopted by the IRT are applied to the National Rural Fire Authority, it is apparent that its current structures and methods of operation are more consistent with these criteria than was the case with the New Zealand Fire Service. For example:

- Purchase/Provider Split The National Rural Fire Authority has a purchase interest in the services provided by Rural Fire Authorities, but no ownership interest. However, this split between policy, service purchase and service delivery functions is complicated by the role of the Regional Rural Fire Officers who are both agents of the service purchaser and involved in operational co-ordination through their work with Regional Fire Co-ordinating Committees.
- Management/Operation Split The management of policy and service purchase is handled nationally. The management of operational services is determined on a regional basis. The command of operations is handled on an Area or District basis. This broadly corresponds with the pattern of relationships envisaged by the IRT for the restructured New Zealand Fire Service.

Recognition of Interest Groups Provision is made for interest group views to be articulated:

- at a regional level through Regional Fire Co-ordinating Commitfees; and
- at a national level through the Rural Fire Advisory Committee.

In a sense, these arrangements parallel two concepts advanced by the IRT in relation to reform of the New Zealand Fire Service viz:
the establishment of boards reflecting owner and stakeholder interests to govern the new Regional Fire Enterprises; and

- the establishment of an interest groups' forum to advise the restructured Fire Commission.

Diversity of Delivery Systems A variety of different organisations are involved with rural fire service delivery, in contrast with the standardised brigades maintained by the New Zealand Fire Service.

- Cost Effectiveness The largely voluntary character of the national rural fire organisation maximises cost effectiveness. The slim National Headquarters management team also contrasts markedly with the Fire Service's management structures and resources.

In view of this degree of conformity between existing National Rural Fire Authority structures and operations and the IRT's reform principles, the future configuration of the National Rural Fire Authority can be settled without the major change envisaged for the Fire Service. The IRT proposes the following alterations:

- Completing the Merger of Rural and Urban Fire Policy and Service Purchase Functions. The policy and service purchase functions of the National Rural Fire Authority need to be brought together with those of the restructured Fire Service, This will require the consolidation of the Fire Service Act (1975) and the Forest and Rural Fires Act (1977). It will also require the development of a new coherent corporate identity for the restructured Fire Service Commission which will maintain these policy and service purchase activities.
* Role and Placement of National Rural Fire Officer and Staff. The present functions of the National Rural Fire Officer and his staff equate, to a large degree with the policy, research and development, and service purchase role which will be carried out by the staff of the New Zealand Fire Service Commission's Policy \& Purchase Bureau. It is therefore recommended that these personnel be reassigned to this Bureau, with any consequential changes to their job descriptions which may be required to ensure they relinquish current operational functions.
- Development of Integrated Policies. The merger of rural and urban policy advisory functions within a single organisation will allow integrated policies to be developed, supported by a unified approach to service purchase.
- Strengthening of Rural Fire Research and Development Functions. Within this merged bureau, consideration should be given to increasing the resources applied to the development of methods for assessing rural fire risks, determining standards of rural fire cover and speeding up the development of enhanced rural fire forecasting.

Management of Service Delivery. The IRT believes the present system of Rural Fire Authorities should be retained. These agencies, while relatively new, have demonstrated their capacity to deliver effective services at a very low cost. However, it accepts that there could be some scope for continuing to amalgamate current rural fire districts into larger administrative units. It accepts estimates provided by the National Rural Fire Authority that:
*... in place of the present 74 ... the merging of Territorial Authority rural fire responsibilities would ... reduce [the total down to approximately $20-25$ [thus] providing economies of scale with respect to a viable structure for rural areas."

- Regional Co-ordination of Rural Fire Services. The IRT believes this coordination function should rest not with the Regional Rural Fire Officers (who would be employed by the proposed Regional Fire Enterprises) but rather local govemment (which has operational service delivery responsibilities). It is therefore suggested that the Regional Fire Co-ordinating Committees be retained but that responsibility for their servicing be assumed by local govermment on some basis agreed among affected district and regional councils. The possibility should be explored of establishing these co-ordinating committees as committees of Regional Councils.

Future of the National Rural Fire Advisory Committee The IRT proposes that the functions of this committee and its membership should be subsumed within the interest groups forum which is to advise the restructured Fire Service Commission. It is further proposed that this advisory function be strengthened through the provision that it report directly to the full Commission rather than through its officers.

Role and Placement of Rural Fire Officers It is recommended that Rural Fire Officers be retained in the new structure but that they be taken into the offices of the Regional Fire Enterprises. They would relinquish their co-ordination function and instead concentrate on the development of:

- technical advisory services to Rural Fire Authorities; and
- training services for Rural Fire Forces.

It is suggested that these services might be made available on a similar basis to the fire suppression services currently provided by the New Zealand Fire Service, with an initial allocation provided without charge and continuing services offered on the basis of full cost recovery.

### 5.5 BOUNDARY DISPUTES AND ISSUES

5.5.1 The IRT has received a number of submissions suggesting that operational elements of the rural and urban fire services should be amalgamated under common regional command exercised by the New Zealand Fire Service. Among the problems amalgamation would overcome, it is suggested, are the operational conflicts which occur at the boundaries between rural and urban fire districts. This conflict was graphically illustrated by a case which occurred in Wellington on 5 November 1993:
*... On the evening of 5 November 1993 the Wellington Control Room had some 600 notifications of fire in the area which related to around 120 incidents. The NZ Fire Service urban resources were very busy responding to these incidents.

The Rural Fire Forces of Hutt Valley, Wellington City, Eastboume and Wainuiomata were ready to be called out but were not.

The system of responding the Rural Fire Forces (RFFS) is either by direct contact from the NZ Fire Service Controlroom or through the Controlroom via the parent Rural Fire Authorities.... The Rural Fire Authorities were not contacted by the Controlroom on the evening of 5 November.

NZ Fire Service is responsible for fighting fires within its Urban Fire District boundary as are Rural Fire Authorities for fires within their RFA areas. The Controlroom determines whose authonity the fire is in and this determines the response procedure.

It appears that the majority of incidents on 5 November were within the Undan Fire District. The Controlroom was overloaded with calls and had little time to determine or double check whether fires were inside or outside the urban or rural boundaries...

It does seem there is something wrong with a system when one sector of fire services is very stretched responding and mainly fighting vegetation fires, when the other sector, specifically set up, trained and geared for rural fires, can only sit by idle and ineffectual.

The Rural Fire Forces are manned with enthusiastic volunteers whose dedication to the cause of rural firefighting will eventually wane if they are not utilised."

This letter is not entirely accurate. As it happens, IRT consultants were in the front line observing operations on Guy Fawkes night and witnessed the Wainuiomata Bushfire Force in coordinated action alongside the Fire Service. This episode does however, highlight the problems of communication and coordination that do exist between rural and urban fire services.

Similar cases were cited in many other submissions to the IRT.
5.5.2 Other submissions have drawn attention to the problems and disputes caused by the apparently arbitrary nature of rural and urban district boundaries. Local Government Commission submissions, for example, referred to the problems caused by 'some rather strange lines... drawn on the map' and cited geographical complexities which resulted in a 'mixture of urban and rural services being dotted around the place', which split otherwise unified areas into 'disjointed halves'.
5.5.3 Further related problems were said to be occurring as a result of shifting demographic patterns and the depopulation of former urban areas. Submissions to the IRT claimed that the New Zealand Fire Service has:
*... some fire district's at present where there is no urban community at all."

A total of 55 low-callout fire brigades, auxiliary units and stations were identified which are established in locations where it may be difficult to classify the community as urban'. They nevertheless continue to be funded under the aegis of the New Zealand Fire Service. In contrast, it was submitted that:

> "... there are Voluntary Rural Fire Forces that respond to more fire calls than some Fire Brigades and Auxiliary Fire Brigades."

It was also submitted that some Voluntary Rural Fire Forces were increasingly engaged in providing services in relation to structure fires and non-fire emergencies for which they lacked adequate training.
5.5.4 The IRT has not been provided with comprehensive data on these matters. Nevertheless, such issues were raised frequently enough to suggest that the Commission should take immediate action to review:

* the practicality of maintaining the 55 low-callout fire brigades, auxiliary units and stations within the New Zealand Fire Service network;
whether there is a case for taking over responsibility for those brigades currently maintained by Rural Fire Authorities which are discharging structure fire and rescue emergency services on a scale and frequency which suggests they should be reclassified as urban fire districts.

The IRT concurs with the view that what may be needed to solve recurrent boundary disputes is:
*... a more pragmatic and commonsense approach to response and suppression of fires irrespective of whether they are in or outside any urban or rural boundary."

However, it believes that such an approach is more likely to be achieved through cooperative relationships forged at a local level rather than through structural change initiated at a national or regional level. In advocating the
need for such cooperation, the IRT supports the spinit of the following submission:

> "Urban Fire Services camy out the initial response to rural fires and are either relieved or joined by rural units. ... It would be sensible that rural forces be utilised in Urban Fire Districts to assist the NZ Fire Service to control vegetation fires when there is an obvious need. Efficient and effective fire control is the ultimate aim."
5.5.6 In this respect, the IRT notes a variety of developments which are occurring in which Rural Fire Authorities are purchasing services from the New Zealand Fire Service including:

4 operational assistance in the suppression of yegetation fires;

- consultancy services for the preparation of rural fire plans; and
- the purchase on a contract basis of comprehensive fire cover within a territorial area.

The IRT believes that the development of such co-operative approaches would be facilitated if appropriate financial incentives were provided as part of the service purchase agreements negotiated by the restructured Fire Commission. Again, in the IRT's view, such co-operation is best accomplished as a result of local initiative rather than centralised direction.

### 5.6 RECOMMENDATIONS

The IRT therefore recommends:
5.6.1 Merger of Rural and Urban Fire Policy and Service Purchase Functions

That the urban and rural fire policy and service purchase functions be merged under the control of the restructured New Zealand Fire Commission.

### 5.6.2 Consolidation of Legislation

That the mandate of the restructured Commission with respect to urban and rural fire services be established through new enabling legislation which would consolidate the powers and functions containsd within the Fire Service Act (1975) and the Forest and Rural Fires Act (1977).

### 5.6.3 Placement of Rural Fire Staff

That the National Rural Fire Officer and staff be incorporated within the restructured New Zealand Fire Service Policy \& Purchase Bureau with their functions exclusively limited to policy, research and development, and service purchase.

Integrated Policy Approach
That an integrated approach to rural and urban fire policy be developed within the Bureau, supported by appropriate service purchase arrangements.

## Rural Fire Research and Development

That more resources be allocated to rural fire research and development particularly with regard to the development of methods for assessing rural fire risk, determining standards of rural cover and accelerating the development of enhanced rural fire forecasting.

### 5.6.6

## Service Delivery

That the management of rural fire service delivery contirue to be provided by Rural Fire Authorities on the funding basis currently established but that:

- consideration be given to amalgamating the preser: 74 territorial rural fire authorities to produce approximately $20-25$ redefined distrias; and
- Department of Conservation and forest industry Rumel Fire Authorities should remain unchanged; and
* the servicing of Rural Fire Coordinating Committees be assumed by local govemment on some basis to be mutually agreed among affected parties. One option would be to establish the Rural Fire Coordinating Committees as committees of Regional Councils.


### 5.6.7 <br> Rural Fire Officers

That Rural Fire Officers be employed by the new Regional Fire Enterprises and that their functions be restricted to the provision of:

4 technical advisory services to Rural Fire Authorities; and

* training services for Rural Fire Forces.


### 5.6.8 National Rural Fire Advisory Committee

That the function and membership of the National Rural Fire Advisory Committee be subsumed within the proposed interest groups' forum reporting directly to the restructured Fire Commission.

### 5.6.9 Review of Low Callout Brigades

That the Fire Commission take immediate action to review:

- the practicability of maintaining the 55 identified low callout fire brigades, auxiliary units and stations within the New Zealand Fire Service network; and
* whether there is a case for taking over responsibility for those brigades currently maintained by Rural Fire Authorities which are discharging structure fire and emergency services on a scale and frequency which justifies their conversion to uban district fire brigades or Fire Brigade Auxiliary Units within the operational structure of the proposed Regional Fire Enterprises


### 5.6.10

Review of Rural Fire Protection Funding
That the reorganised Fire Commission advise the Govemment that rural fire interests have raised concems about lack of equity in the allocation of resources for rural and urban fire protection and these issues should be addressed in any Government review of funding for fire and emergency services.

## 6. POLICY AND PLANNING



## 6. POLICY AND PLANNING

6.1

## CURRENT ROLES IN POLICY AND PLANNING

Policy formulation and planning are crucial tools for steering, managing and developing any organisation. Planning provides the formal framework responsibilities and timetable - for decision making. while policy formulation deals with the content of the decision process.

The Fire Service Act 1975 is paramount in establishing the context and parameters within which policy formulation and planning take place. The Act, however, is unclear with regard to the respective roles of the Commission and Fire Service.

Under the Act, the New Zealand Fire Service Commission is deemed to:
*have the general control of the Fire Service and shall be responsible to the Minister for the efficient administration of this Act"
while the Chief Executive is
"responsible to the commission for -
a) The general conduct of the functions and activities of the Fire Service; and
b) The efficient, effective, and economical management of the functions and activities of the Fire Service."

From interviews the IRT has found a general awareness of confusion stemming from the Act and from the modus operandi established under it. This has fed through into fundamental shortcomings in the policy and planning processes that have inhibited the New Zealand Fire Service's effectiveness and efficiency. These difficulties have been compounded by inadequate policy analysis and review methodologies.

In 1990, in line with the principles of state sector reform, a Fire Service Amendment Act was passed to establish a clearer differentiation between policy formulation and monitoring, and management of the New Zealand Fire Service. Under the 1990 Amendment Act, the position of Chief Executive was established to manage the Fire Service. The corollary was a restructuring of National Headquarters, led by one of the uniformed Commissioners, who later was appointed as the first Chief Executive and National Commander of the Fire Service.

Our observation is that the separation was incomplete and confusion continues as to the respective roles of the Commission and the Chief Executive. This confusion is an invitation to Commissioners to become involved in managing the Fire Service, and there has been a tendency for that to happen in the past.

Even if the Commission wished to be detached from the management of the Fire Service, it inevitably is drawn into it by the nature of the working
relationships it has with the Fire Service through the Chief Executive and National Commander, and the issues put before Commission meetings. The Commission spends a great deal of time keeping abreast with what the Fire Service is doing in its service delivery rather than focusing on policy matters.

Examples of management policy proposals faced by the Commission recently include equal employment opportunities, Executive Officer housing. and "a proposed policy on the location of poker machines on fire stations" (26 June 1991).

Further confusion has arisen from the policy role played by the Minister/Department of Internal Affairs. The Minister is able to influence policy, both through Intemal Affairs' representation on the commission and through issuing particular directions. These may be precise and binding. One example, which impacted specifically on both the purchase of fire and related emergency services and their delivery, was an instruction in August 1993 to reduce expenditure $5 \%$ but under certain constraints, such as there is to be no closure of fire stations".

The Minister may obtain contestable policy advice from both the Commission and from the Department of Intemal Affairs. This can place the Intemal Affairs' representative in a sensitive position when the Commission is passing formal resolutions on matters on which the Department is advising the Minister independently.

### 6.2 CURRENT POLICY FORMULATION

The current system of policy formulation - the processes and methods of analysis employed by the Commission and Fire Service - has been shaped by the structure of the organisation, the various roles played, and the technical capabilities available to carry out the analyses.
Our examination of the policy formulation process as it stands has revealed several major deficiencies:

- The Commission undertakes no independent analysis or assessment of proposed policies or review of existing policies.
- There is a lack of needs assessment underpinning fundamental policies.
- Policy issues are addressed as they arise with no clear system for their anticipation or for re-examination of existing policies.
- There is no apparent method for prioritisation of policy issues.
- There is a blurring between general Commission policy related to service purchase issues and procedures or policies related to the business of Fire Service delivery.


### 6.2.1 <br> Lack of Independent Policy Analysis

In the present policy process, policy papers are prepared by the Fire Service and presented by the Chief Executive for the Commission's consideration. The Commission then makes adjustments as it sees fit before policies are adopted.

The Commission has no independent capability, however, to assess policy proposals emanating from the Fire Service or to review existing policy. Reliance is placed entirely on the Fire Service for policy advice. Even commission agendas and minutes of meeting discussions are written by Fire Service personnel.

In effect, the policy process is dominated by the Fire Service, and the Commission, as the purchasing agent, is captured by the provider of the service.

There have at times been Commissioners who have questioned existing or proposed policies. Unfortunately they have also interpreted their role as one of suggesting altemative methods of service delivery. This has reduced their effectiveness in the policy field and only contributed to confusion between the policy and management roles of the Commission and Chief Executive respectively.

Roles aside, the Fire Service policy advice has not been based on conventional policy analysis, which involves objective identification of altematives and their costs and benefits. The Commission therefore has had little scope for choice in decision-making regarding proposed policies.

Furthermore, we have found no examples of integrated assessment of policy altematives. Instead, the Commission has tended to get reports from functional divisions which may or may not incorporate comments from other divisions and the regions. The result has been service policy based on partial and fragmented analysis.

### 6.2.2 Lack of Needs Assessment

There has been no formal assessment of public need for fire services from place to place, now and in the future, by either the Commission or the Fire Service. There have been assessments of risk by the Fire Service but no independent identification of relative need for fire protection, for example, between different types of areas such as new CBDs versus old city centres, commercial versus industrial zones, urban versus rural areas, or city versus residential areas.

Instead policies, activities, protection objectives and the service levels set have tended to evolve from past experiences. This historical determination is no substitute for a formal, objective process of analysis and is a major flaw in the policy process.

Together with the lack of independent policy analysis this has left the policy process open to undue influence by a limited range of interests, at best, and potential control by partisan interests, at worst.

There is also no apparent Ministerial safeguard against such potential abuse. The Govemment outcomes that form the overall guide to the Commission in formulating policy (Figure 6.1) are not publicly stated by the Minister prior to the formulation of the Annual Plan and Budget by the Minister but are simply Commission or Fire Service interpretations of the Act. Either way there has been no review of their appropriateness

Figure 6.1; Govemment Outcomes as Stated in Corporate Plan 1993-1994

- The reduced incidence and effects of fire.
- The safety of life and property from fire and the threat of fire.

4. The safety of life and property from hazardous substance accidents and certain non-fire emergencies.

- Co-operation between all fire services, Fire Authorities, territorial and other authorities and organisations, in the control of fire.
- Stable, efficient and effective fire services in New Zealand.

Ad hoc Policy Formulation and Review
A wide range of policy proposals has been addressed by the Commission in response to issues identified or initiatives suggested at any level within or outside the Fire Service. Policies have also been determined by industrial relations negotiations in annual award rounds with the Unions.

It appears policy formulation has rarely been initisted by the Commission itself. The Commission has not been in a position to anticipate policy issues before they arise. There has been no strategic approach to issue identification and, in reality, the Commission's policy function has amounted to monitoring what the Fire Service is doing after the event and confirming policy positions taken up or advised by the Chief Executive.

There is also no apparent programme of policy review. As with policy formulation, reviews have been ad hoc and piecemeal and have covered both outcome and service delivery issues. A large number of these have been undertaken throughout the Fire Service over the last two years, many of which are listed in Annex 3. Some, such as a 1993 review of insurance arrangements, have been ordered by the Commission put the majority have been initiated by the Fire Service itself.

There is little apparent structure to the history of reviews. This supports the observation that the appropriateness, priority and objectives of policies and services are not revisited in a regular and systematic way. Rather, they are only adjusted when difficulties arise through changes in policy context (Fire Service or Govemment) or operating circumstances. Reviews should be undertaken on a regular basis, asking fundamental questions to determine if the policy is achieving the outcomes sought.

Policy reviews should allow reassessment of policy priorities, bearing in mind competing policies or potential policy responses to new issues, and the opportunity costs of maintaining the current policy. Reviews should therefore result in efther maintenance, succession, or termination of the existing policy.

Service reviews should be a means for the Fire Service to re-examine its core business and decide whether to continue, expend, or contract provision of services such as fire suppression, fire safety, or response to other emergencies. This is a fundamental responsibility of the Commission and it should have direction over the process, prioritising services it wants to review. Under the present structure, managemert is held accountable for conducting the reviews and reporting on possible altemative directions the Commission can take.
6.2 .4

Lack of Policy Evaluation and Prioritisation
Policies are formulated with no objective determination of priorities and evaluation criteria. Proposed and reviewed poscies are not assessed against a framework that identifies contribution to desired outcomes, weighing up objectives of the various community and stakeholder groups and balancing those that conflict, within the Commissicn's overall mission and objectives.

Prioritisation implies strategic thinking in the determination of service needs and directions, the identification of the costs and benefits of altemative policies, and an objective choice as to where the poicy Emphasis should ile. The IRT has found no evidence of such analyses of policy formulation documented by the Commission or Fire Service.

Lack of objective, quantified prioritisation is shown in the subjective decisions made regarding relative effort between broad activities. Without analysis resource allocations between different activities are necessarily arbitrary.

Output class allocations have been based on historical cost, and adjustments from year to year have reflected changes in costs or their recording, more than conscious and objective priority decisions. An apparent increase in funding for fire safety advice and promotion from $\$ 6.2$ million or $3.4 \%$ of total funds in 1992 to $\$ 10.2$ million in 1993 ( $5.6 \%$ ) was "mainly the result of the introduction of a more accurate costing system during the [1992] year (1992 Annual Report).

We believe that the philosophical emphases of the Commission and the Fire Service are not in tune. The core business of the Commission should be the identification of needs regarding fire and related emergency services and the allocation of limited resources to service providers in order to meet those needs. The core business of the Fire Service is clearly fire suppression and other activities are built around this. The Fire Service has simply assumed other roles, such as promoter of fire safety or provider of rescue/extrication services at vehicle accidents, as they have arisen.

Fire Service involvement in non-fire emergencies represents around $28 \%$ of callouts (excluding false alarms) and these activities have been allocated $\$ 30$ million, or $18 \%$ of the $1993-1994$ budget. Aside from the inherent funding inequities this represents it illustrates the significance that these activities have taken through incremental change without objective assessment of relative prionties.

Recognition of different core businesses will flow from prioritisation under the policy/provider separation. While the Commission should consider needs and how best to meet them with limited resources, the Fire Service should assess what activities to be involved in - whether peripheral activities bring synergies to their core business or detract from it.

### 6.2.5 Inappropriate Commission Involvement in Fire Service Management

As indicated in the discussion of overlapping roles, the Commission has been involved in formulating policy that we believe is more appropriately the business of the deliverer of the service. Policies related to the internal management of the Fire Service in meeting the requirements of the Commission should be a clearly separated responsibility of the Chief Executive. He in tum should be accountable to the Commission for effective and efficient performance of the services provided.

The involvement of the Commission in management is a legacy of the more "hands on" Commission structure and operation prior to the separation of roles of the Chairman and Chief Executive in 1990.

A sign of how far the overlapping and potentially confusing responsibilities have got to is in the authorship of various Fire Service manuals used extensively by managers in their administration of the Fire Service. These cover topics which are clearly areas of intemal management not Commission policy (eg personnel) and yet many of their titles have duel
authorship: New Zealand Fire Service Commission on the outside cover and New Zealand Fire Service on the frontispiece.

Another area where roles are potentially confused is employment contracts. We are unable to find clear delineation of responsibilities in the Act but can envisage a scenario in which both the Commission and Chief Executive are involved. Contract negotiations are the responsibility of the Chief Executive but if their outcome looked likely to affect the budget the Commission would become involved. If the Commission's purchaser role was clearer, however, it would fix the budget according to perceived need for Fire Services and it would be up to the Chief Executive to adjust service delivery costs as necessary to fit within it.

We believe this separation of roles is possible under current legislation provided a clear understanding is established between the Commission and Chief Executive as to a modus operandi. Should this prove unworkable however, it will be necessary to review the legislation and terms of appointment of Commissioners in order to avoid potential misunderstanding regarding roles and responsibilities.

### 6.3 RECOMMENDED APPROACH TO POLICY

The separation of purchaser and provider roles described in Chapter 4 should be cemented into policy formulation with a clear distinction made between the different policy roles of the Commission and Chief Executive. Policy formulation should be undertaken by both, but the nature of policy issues addressed will differ.

The Commission should formulate policies that relate to the overall need for and direction of fire suppression, prevention and safety activities carried out by the Fire Service; while the Fire Service should determine the corporate or business and operational policies it requires in order to deliver fire services.

Policy role separation implies that the Act and the relationship with the Minister be clarified. If there is a clear separation and the Commission provides good quality policy analysis and assessment of the effectiveness of objectives in achieving desired outcomes, the role of Intemal Affairs will automatically become one of monitoring, on behalf of the Minister, the performance of the Commission and providing contestable advice on outcomes for the Government.

### 6.3.1 Commission Policy and Purchase Bureau

The Commission should be responsible for advising the Govemment on outcomes related to fire services and for specification of those outputs/services it wishes to purchase in order to achieve the desired outcomes.

Outcome policies for the Commission should be expressed as achievable, measurable goals such as, for example, a reduction in the incidence of fires by $X \%$ over the next five years. These could then be translated into outputs to be purchased.

For the Commission to determine the fire services it wishes to obtain, it should have an independent capability to identify broad community needs and preferences, and to formulate and continually review its purchaser policies to verify and calibrate them according to community satisfaction.

To assist the Commission realise its policy/purchaser role, we recommend that a Policy and Purchase Bureau be established, independent of the Fire Service, to provide policy advice directly to the Commission. The policy functions of this Bureau should include:

- Verification of outcomes sought.
* Specification and prioritisation of outputs to be purchased to contribute to the outcomes.
- Development of a funding policy.

4 Development of a purchase system, and buying advice.

* A check on whether the Commission receives value for money for what it purchases.


## Outcome Verification and Output Specification

The Bureau would need to be headed by a director appointed by the Commission. The Bureau staff could be made up partly from elements of the current Fire Service organisation including researchers from the Planning and Review Directorate, experts from fire suppression and fire safety, the National Rural Fire Officer, the library, and other resources from the Administration Directorate as a secretariat for the Commission. Other experts could be engaged on contract.

The identification of Commission outcomes and outputs/services for the Govemment to purchase, such as fire suppression or promotion of fire safety, should be based on community needs. This will require the Commission, as distinct from the Fire Service, to draw on environmental scanning, direct stakeholder contact, close liaison with service delivery professionals, and research and analysis.

* Environmental scanning should include continual forecasting and monitoring of issues related to community needs in regard to fire and other emergency services. This could be achieved through the Policy and Purchase Bureau undertaking a regular review of trends in service provision internationally, analysis of the demographic structure and shifts within the various community sectors served, and regular survey of the changing needs and expectations of these community sectors.
- Stakeholder contact should be made both by the Bureau as part of its policy research and issue identification, and by the Commission, through formal establishment of a stakeholder forum to directly assess the service to be purchased. As proposed in Chapter 4, the forum should include: the New Zealand Insurance Council, Building Owners and Managers Association, the Local Government Association, Federated Farmers, the Forest Owners Association, the Department of Conservation, the Consumers Institute, the Automobile Association, and others.

Liaison with Fire Service professionals will be vital both for ensuring operational feasibility of policy proposals and for gaining feedback from the fireground and community interface. One mechanism for this would be the secondment of fire professionals into the Bureau to draw on their expertise for specific projects.

The Bureau should also engage in a programme of research and analysis of the relative needs and risks of different areas, and to help address strategic issues identified in its scanning. This is where intemational experience should be reviewed. Tre Bureau should also be free to draw on external expertise to ensure it has the most cost effective and up to date research methodologies. One important source of research information would be FIRS data purchased from the Fire Service.

The Commission's policy analysis capability should be sufficient to assimilate issues and policy proposals in order to prioritise resource allocations and balance conflicting stakeholder interests. The forum should be the channel for the Commission to gain direc. feedback from these interests on service purchase proposals.

Purchase
Policies and
Buying Advice

The detailed nature and standards required for each of the services to be purchased should be determined by Commission policy. One example would be the level of protection sought in fire suppression, or the Standards. of Fire Cover. The bureau should review these standards to ensure they adequately reflect the range of needs and risks that exists within the community and infrastructure of New Zealand.

The assessment of risk should be the responsibility of the purchaser. This will avoid the possibility of the Fire Service, as deliverer exaggerating the level of risk so as to obtain or retain resources, making it easier to maintain performance standards overall; or, conversely, playing down isk so as to ease performance requirements.

The Commission could utilise professional risk assessors or undertake the risk assessments through the Bureau, perhaps building on methodologies currently under development by the Planning and Review Directorate and contracting Fire Service personnel to collect information in the field. The three-class risk classification currently in use will not, we believe, serve the proposed system. The range of "Normal Risk" is too broad and it is likely to lead to distortions in the provision of cover. That a five class system is still found necessary in assessing water supplies suggests that a four or five class system is more appropriate.

Standard-setting should be sufficiently detailed to specify outputs for negotiation of service agreements in contracts between the commission, the Fire Service, and others. The clear necessity for service definition at this level to be operationally achievable will require close liaison with the providers, particularly for fire suppression. Secondment of fire professionals onto specific Commission policy research projects would be one way to achieve this.

The costs and benefits of altemative standards should also be identified to help assess needs and set priorities.

The Commission should establish policies concerning how it is to purchase the required services: including the selection of providers, determination of service contract budgets for each, their negotiability, and assessment of tradeoffs between quality, timeliness and price.

Initially the Commission will have limited choice in selection of provider for the core service of fire suppression. Eventually it may choose to negotiate service contracts directly - with industrial fire units, for example. It could even introduce competitive tendering for other services, such as certain fire safety activities in promotion and education, or have fire suppression tendered for by permanent and volunteer brigades in cerain areas.

Budgets should follow the prioritisation of the services and activities, Within the needs-based allocation of resources, the Commission will be able to negotiate altemative outputs packages with providers.

The Bureau, having undertaken an analysis of purchase options, should provide the Commission with advice on purchase choices: the advantages and disadvantages of altematives and recommended purchases.

Value for Money Closely related to policy issue identification will be assessment of service Assessment

### 6.3.2

Issue Identification

## Policy

Objectives and Priorities

Policy Options Evaluation and Selection

Policy
Implementation, Monitoring and Control delivery levels. The Commission will need to independently assess whether it has received value for money for the services it purchases.

One form of assessment could take place in parallel with the programmes of environmental scanning and stakeholder consultation etc. Where possible, market survey-based approaches should be used to measure the achievement of objectives negotiated with the Fire Service.

The principal check on service delivery should be contractual obligations for providers to give evidence of their meeting negotiated outputs measures and proof of the comparative cost effectiveness of services offered before the service provision contract is agreed.

## Fire Service Corporate Policy

Fire Service policy, at both the business and operational levels, should be formulated through a recognised objective process of policy analysis which forms an integral part of management and decision-making. Such an objective process would encompass five aspects in logical sequence:

1. Issue Identification (Search, Selection, and Focus)
2. Policy Objectives and Priorities
3. Policy Options Evaluation and Selection
4. Implementation, Monitor and Control (Services and Programmes)
5. Review (cyclical) leading to Maintenance, Succession or Termination

The process of selection of policy issues should arise from a search for strategically significant existing or anticipated problems or opportunities. It should filter for policy issues that reflect the Fire Service mission and objectives.

There will, from time to time, be other issues that will need to be resolved. Addressing these may imply reordering priorities to release resources, so there will be a need to balance flexibility with stability of the policy analysis work programme.

Once a policy issue has been identified, objectives and priorities should be set for addressing the issue. The criteria for evaluation of policy options should be established within the context of the business strategy.

A number of altemative policy responses will exist for addressing a policy issue and these should be evaluated against objectives and priorities.

Policy options may be contained within a single function and have a single objective. Complexity of evaluation increases when policy options have multiple objectives and trade offs. The most difficult options for evaluation, however, are those that address cross-functional issues.

The component parts of a policy are the services and programmes that are the means by which outcomes are achieved - the vehicle for policy implementation.

Implementation is an integral step in the policy formulation process. As with policy evaluation, there will be several possible services or programmes
from which to choose. Specification of the chosen method should be sufficiently detailed so that, once underway, it can be monitored and controlled to ensure progress meets expectations.

Reviews of the policy should be undertaken on a regular basis, say every three years. Fundamental questions should be asked to determine if the policy is achieving the outcomes intended. In order to better allow evaluation of policy success, performance measures should be built into the definition of policy components.

Policy reviews should allow reassessment of policy priorities bearing in mind competing policies or potential policy responses to new issues and the opportunity costs of maintaining the current policy. Reviews should therefore result in either maintenance, succession, or termination of the existing policy.

6.4

## CURRENT CORPORATE AND BUSINESS PLANNING

The current approach to corporate and business planning is in a state of change, adjusting to a major change in philosophy introduced by the new Chief Executive in April 1993.

### 6.4.1

### 6.4.2

The Approach pre-April 1993
The planning process that operated under the previous Chief Executive was very much directed from the top down. The Corporate Plan would be produced by the Planning and Review Division, under instruction from the Chief Executive. Once approved by the Commission, the Corporate Plan would then be translated by Planning and Review into Business Plans for each of the Areas, including standardised performance measures that came together under an auditable reporting system.

This process had its strengths and weaknesses. It offered standardisation of reported performance, explicit links between the Corporate Plan and Business Plans, and clear indication to staff what was expected of them. Aside from the output measures employed, the major target for criticism of the approach has been its lack of regional ownership. The laying down of Business Plans from National Headquarters did not invite "buy-in" from the Areas or Regions.

## The Current Situation

A shift in planning philosophy, seeking a less centralised approach with greater regional "buy-in", has accompanied the change in leadership within the Fire Service. This has generated high expectations throughout the organisation but its introduction has created difficulties.

The abruptness of the shift has created confusion and uncertainty, with managers unclear as to their instructions for Business Plan preparation under the new approach. A great deal of reliance is being placed on a corporate reporting system that is yet to be designed and there has been concern that, in the hiatus, essential recording of data for measuring performance under audit conditions against Corporate Plan outputs has been missed. In the tensions that developed, Planning and Review administrators of the previous system became scapegoats.

The changes meant the 1993-1994 Corporate Plan was not released until four months into the year to which it applies. This delay was compounded by further delays in Ministerial approval of the budget.

These difficulties may reflect a temporary aberration brought about by unusual circumstances but they do mean there is no full, coherent planning process in operation for the Independent Review Team to assess. It appears that the Fire Service corporate planning has yet to achieve philosophical consistency; the corporate reporting project, for example, is advocating a continuation of "top-down" strategic planning while the belief amongst the Regional Commanders is that the next Corporate Plan will develop from the "bottom-up".

## 6.5 <br> RECOMMENDED CORPORATE \& BUSINESS PLANNING APPROACH

With the complete split of purchaser and provider functions under the optimum structure, both the Commission and Fire Service will need to meet separately the Public Finance Act requirements for planning and reporting. Essentially, the planning process will be the same for each but will involve different players and address issues of different nature and order. We concentrate here on the conceptual approach we envisage for corporate planning within the Fire Service under the interim structure.

Corporate planning within the Fire Service should have the dual purpose of mapping out the direction and development of the organisation, and formally and publicly stating service agreements made with the Commission. In this way plans will be consistent with the goals of the Public Finance Act to increase accountability to the Minister and to provide clear information on activities, as well as serve as a tool for longer term planning for the business.

The proposed regionally driven planning process will differ fundamentally from the current top-down approach. Under a regionalised structure the process should generate plans on three ascending levels:

1. At the Area level, with Area Business Plans.
2. At the regional level, with Regional Business Strategies.
3. At the national interface of the Fire Service and Commission, with the Corporate Plan.

In reality, the corporate planning process will be continuous and an important responsibility of the Chief Executive will be to monitor both the generation and the achievement of the regionally based Fire Service Corporate Plan. If there are three separate regional enterprises as proposed in Chapter 4, then the planning process would be replicated within each, to produce three sets of plans under the Regional General Managers.

Level One: Area Business Plans

Planning at the Area level should be primarily concerned with the efficient and effective delivery of contracted services. The focus should therefore be very much on performance against agreed output measures within agreed levels of funding.

Under these dual pressures, decisions will need to be made based on the economics of altemative delivery methods. For example, the costs and benefits of utilising sunk investment in permanent fire fighters or investing further in upgrading the volunteer resource, should be assessed through standard policy analysis and incorporated in the business plans.

Much of the Area level planning will relate to disposition and management of operational resources. This is discussed, with particular reference to fire station disposition, in Section 6.6.

Level Two: Regional Business Strategies

Strategic management issues that will affect delivery of the service contract with the Commission, and the shape of other contracts in the medium term, should be identified within the Regional Business Strategies. These should relate to threats to and opportunities for the achievement of Fire Service business objectives.

Level Three: Corporate Plan

An initial business threat, for example, may be the intention of the current sole purchaser (the Commission) to insist on contestability in what is on offer throughout the country, and the possibility of competition from other suppliers. Business opportunities might include the possibility of the Fire Service supplying other markets such as industrial/commercial training. rural fire fighting, workshop servicing for fleet operations, or the development/adaptation of equipment and appliances for innovative applications.

Different regions will face different threats and opportunities with varied strengths and weaknesses, and regional management should work closely with their Area Commanders to identify these and develop business strategies to use them to best advantage. Auckland, for example, may be in a better position than more rural regions to sell fire protection training due to its larger areas of industrial and commercial property, while Wellington, with a high concentration of institutions and facilities in tertiary education, could be best placed for fire service training.

Strategic alliances with organisations such as ambulance boards for road accidents, and Civil Defence or search and rescue organisations could also form part of the Fire Service's delivery and market development strategies.

At the end of the day, however, we see the prime role of the Fire Service continuing to be as supplier of fire suppression and safety services to the Commission and this will dicfate planning focus and business activities to a large extent.

The culmination of the "bottom-up" planning process will be the Fire Service Corporate Plan(s). The Fire Service Corporate Plan should outline both the service agreement between the Fire Service and its primary customer, the Commission, and the strategic issues, goals, directions and other activities to be undertaken by the Fire Service in line with its own mission and objectives. A Fire Service mission might read something like "to be the principal emergency service in $N Z$, delivering quality in emergency planning and response unsurpassed in the world".

As the service agreement outline it should make an explicit link between the mission and outcomes of the Commission and the activities and outputs negotiated to achieve them. We envisage that negotiations for the service agreement will involve Fire Service management suggesting fully budgeted altemative proposals for achieving Commission outcomes. Prioritisation and selection of programmes will then be the responsibility of the Commission and the outputs to be purchased will be specified within the corporate activities of the Plan and spelled out in measurable terms of quantity, quality, location and timeliness with responsibilities assigned for delivery.

As the tool for longer-term planning, the Corporate Plan should include broad medium-term directions based on both the Commission's needs assessments and outcomes sought, and other business activities proposed under the Fire Service mission. The principal medium-term business planning should be undertaken at the regional "strategic business unit" level with the Chief Executive simply evoking the corporate vision, administering the coordination of timetables and required content, and signalling opportunities to sell fire services to the purchasing Commission.

## 6.6

 CURRENT OPERATIONAL DEVELOPMENT PLANNINGThe Terms of Reference for the Independent Review Team included review of "the disposition of fire stations, appliances and operational personnel." In addition to the broad inter-regional comparisons covered in Section 2, we have evaluated the procedures by which the current disposition of these resources has been arrived at and how modifications are planned, ie operational development planning.

Our review of Fire Service operational development planning included investigation of the current process and the Standards of Fire Cover, using a combination of Fire Service records research, consultation and surveying of Fire Service Commanders and staff, and comparison with intemational experience.

### 6.6.1 Current Process

The present establishments of appliances and permanent personnel at each fire station are determined by national policies set down in the 1987 Resource Review. Area Commanders can seek to build new stations or change their establishments but this must be approved at the regional and national levels.

The current operational development planning process, as described by the Director of Planning and Review, is similar for a proposed new or replacement station, or change in station manning (permanent, volunteer etc) or appliance establishment.

- A proposal is prepared by the Area Commander and forwarded to the Regional Commander who either declines it or supports it on to the National Commander.
- Planning and Review Division performs an Objective Analysis (see 6.6.5) and the Director of Operations uses this, "in conjunction with the Standards of Fire Cover" to prepare a report and make a recommendation to the National Commander.

A financial report is prepared by the Director of Finance, and, on the basis of all the reports, the "National Commander approves or declines the recommendation" although "no defined system exists for assessing requirements of this nature".

There is no specified procedure to follow or criteria to be met for a proposal. Instead, the project sponsors are simply expected to make a case based on their needs at present and in the future, and, in particular, their ability to meet the Standards of Fire Cover.

While this is the current process, for a development to be placed on the five year Capital Works Programme the proposal must also pass the Director of Works \& Property on an "FSC 307" form. This form requires information on the size of the brigade, number of fire calls, vehicles that it has and expects to get, population of the fire district now and in ten years' time, and a list of major fire risks. Response times or problems with meeting the Standards of Fire Cover are not required on the form. This was described by the Director
of Operations as the "official" procedure for proposed developments. It predates the current process outlined above and continues to run in parallel with it.

The Standards of Fire Cover
The Standards of Fire Cover are central to operational development planning in the New Zealand Fire Service. Key elements of the Standards of Fire Cover are:

- Three classes of fire risk (high, normal, low).
* Predetermined response to fire calls in each level of risk, consisting of maximum attendance times of each appliance in the initial response, plus attendance times of supporting appliances (if these are required).
- Pumps with a crew of four.

The predecessors to the current Standards were introduced in 1954, and were initially very similar to the United Kingdom model. The Standards were revised in 1965, and again more comprehensively in 1987. The current Standards were proposed during the 1987 Resource Review by the Regional Commanders' Corporate Planning Group and promulgated in the New Zealand Gazette in 1988. The principal changes in the 1987 review of the standards were the amalgamation of a five-step ciassification of risk and adoption of the four firefighter crew standard.

Despite the importance placed on the Standards they are a crude measure of service level with a dubious basis. There is negligible analytical support for the attendance times or the adoption of the broad N -risk classification which embraces "most of urban New Zealand". Rather than being based on an analysis of the economic life and property protection benefits of altematives versus the cost of meeting them, attendance times in the Standards were set to reflect the performance in 1987.

The 1987 Resource Review reflected that:
"currently about $90 \%$ of all calls are attended within the proposed times and this performance has proved to be adequate"
and went on to state
"it is considered therefore that if the resources and operations of the NZ Fire Service are planned on the basis of the proposed Standards ... and these are met in at least $95 \%$ of cases, not only will the public of NZ continue to receive a high level of fire protection, but the service will be more uniform and costeffective."

There is also little analytical material contained in the Resource Review to support the establishments set. A memo from Fire Commissioner
(Operations) to Fire Commissioner (Resources) of October 1987 notes that during the Review
"information from FIRS was required to determine the workloads of various Fire Districts and to measure the performance of individual Brigades responding to incidents ... considerable difficulty was experienced in obtaining valid data from which comparisons could be made and conclusions drawn."

Subsequently FIRS has been upgraded. However, the 1987 appliance and establishments still hold, unless modified in specific instances or in the 1988 and 1989 update report. Given the data improvements in FIRS, the more precise definition of Fire District boundaries, the introduction of the zoning system, and the current study of the demographics of these zones another review of resource establishments is now due.

### 6.6.3

Survey of Attitudes and Methods
The Independent Review Team surveyed all Regional and Area Commanders on their approaches to reviewing fire station disposition and planning for new stations. The primary foci of the surveys were:

- attitudes to the Standards of Fire Cover,
- the methods employed in operational development planning for fire stations,
- suggestions for improvements

Satisfaction with the Standards of Fire Cover

The Area Commanders fall into two general groups with respect to operational development planning for fire stations in general and the Standards of Fire Cover in particular: those that are satisfied with the Standards as the dominant criterion in fire station planning, and those who find them deficient.

A greater level of satisfaction with the concept and practice of the Standards of Fire Cover was found amongst Regional Commanders than Area Commanders - not surprisingly as some of them participated in the drafting of the Standards.

Those who were less satisfied with the Standards generally have other improvements they would like to see, such as flexible manning of appliances.

One concern that repeatedly came through, particularly among the Regional Commanders, was a frustration with their lack of authority to make the final decision, and the way that station upgrade decisions are subject to manipulation by National Headquarters in the five year Major Capital Works Program because of budget reductions. A more flexible system would be preferred in which capital expenditure was not always the first to be cut. Short-term increases of capital expenditure could be a route to more efficient use of resources, for example, by constructing fewer new stations to replace a greater number of old ones, as has been proposed for Wellington.

Area Commanders' Methods Employed

Opinions on the merits of the Standards of Fire Cover as a criterion in assessing whether fire protection provided was adequate varied from "most satisfactory" from one respondent to a popular opinion that they were "adequate" (nine respondents). Those less favourably disposed to the Standards claimed they lacked flexibility, particularly with response times that are achievable by volunteer brigades. The need for more risk categories was mentioned.

The survey of Area Commanders found a diversity of approaches to reviewing fire station disposition and developing proposals for change.

Meeting the Standards of Fire Cover was the criterion most frequently cited (by seven out of the 20 Area Commanders) in monitoning the adequacy of the current disposition of fire stations. Other factors mentioned are the frequency of calls received and local authority planning schemes. Only one Area Commander mentioned percentage of property saved.

There was considerable variety in the planning horizon used, from five years up to 20 - with five to 10 years being most frequently cited. The length of the cycle varied from one year (as part of business planning), with three Areas using a five-year cycle.

For eight Area Commanders the principal source of information on problems in meeting the Standards of Fire Cover was FIRS reports, CAD reports were used directly for this in six Areas. A few also relied (not exclusively) on advice from District Commanders and even from public complaints. Three regions claimed to be monitoring Standards of Fire Cover performance continually.

Where response time statistics were analysed, CAD statistics were used by seven areas, and FIRS reports by nine. Only one Area Commander referred to application of the $85 \%$ achievement of the Standards that is a performance measure in the Corporate Plan.

There was also diversity in the sources cited as originating reviews of stations. Two Area Commanders said the reviews were always a District initiative, while six said they were always the Area Command's. One said it was the Area's or Region's initiative, with the remainder saying the initiative could come from Area or District level.

Twelve Area Commanders said that ability to meet the attendance time requirements of the Standards of Fire Cover was a criterion in assessing whether proposed changes to stations would meet future needs. The other most frequently cited criterion was District Planning Schemes (11 respondents) and population projections/movements (seven respondents). Specific risk changes were mentioned by three. One Area Commander mentioned property values as a criterion - whether the levies raised by properties justifies the additional protection being contemplated.

The modifications to the Standards that were suggested by Area Commanders ranged from their extension (in perhars modified form) beyond the Urban Fire District Boundary (4 respondents), with others preferring their relaxation - reverting to the status of $\equiv$ guide only. The specification of crew size in the Standards was citicised by three respondents, who would prefer to retain discretion on this matter. A greater weight on the arrival time of the first appliance was also mentioned.

Regional Commanders' Methods Employed

One Area Commander mentioned that it was not satisfactory to have one response time criterion - rather the components of this should be broken out (processing, turnout, travel) and attack time should also be considered. Performance measures could then be set for each component.

A case built on response time to actual calls was seen to be essential in proving the merit of a proposal by four respondents. Two would require reference to insurance income and/or rateable building values. One mentioned lives lost. Other criteria mentioned were travel time and number of calls. Only one Area Commander considered a form FSC 307 to be sufficient in itself.

Most Area Commanders said they have not changed their approach to station disposition questions over the last two years, although the potential for change due to CAD data was referred to.

Suggested improvements by Area Commanders in operational development planning for fire station disposition included:

4 introducing a manual laying out the steps to follow,

* a "locational requirement model" which would be standard for all Uban Fire Districts,
- relating fire station disposition to levy income from protected properties,
- adopting "a programmed approach based on verifiable criteria",
- devolution of final decision-making from the National to Regional or Area level

Most of the Regional Commanders saw it as the Area Commanders' responsibility to take the initiative on Fire Station location issues. One said that he would do so if he perceived a problem.

The stringency of analysis required for fire station review/proposals to be of sufficient merit to be approved by the Regional Commanders varied greatly. One Regional Commander requires a range of quantitative analyses including arrival times, demographic changes, and costs and benefits of changing appliance and crew numbers against changes in potential fire losses. Another would be content with a standard FSC 307 form, supported by evidence of ability to meet Standards of Fire Cover.

The Regional Commanders would all assist with proposals/reviews which require strengthening to bring them to a level that they could support. Five of the six would be prepared to turn down proposals that lacked sufficient merit. Proposals with little or no benefit shown by a 'cost benefit' analysis would be declined, as would 'empire building proposals'.

The Standards of Fire Cover were considered an adequate criterion for assessment of fire protection by five Regional Commanders. The dissenting Regional Commander pointed to flaws in including control room processing time with travel time in the Standards, and that attendance times of second and third appliances could not be economically met in "long
ribbon" urban developments. This Commander would like the Standards modified via relaxation of second and third appliance response times. A similar relaxation was suggested by another Commander, but he favours a reduction of the first appliance attendance time from eight to seven minutes. Another said the Standards should be relaxed as they are not being met and to build or relocate stations to meet them would cost too much. Three Regional Commanders saw no reason to change the Standards of Fire Cover.

The obstacle to incorporating fire station planning with business planning is seen to be lack of control over the Major Capital Works programme at the regional level, this being decided at the national level. One Regional Commander suggested that national priorities be set by the Regional Commanders in consultation with each other and, once financial approval is obtained from National Headquarters, implementation becomes part of the regional business plan.

Four Regional Commanders saw some room for improvement in fire station planning in their regions. All made suggestions for improvements at the national level. These recommendations included:

- Planning and Review Division developing a mathematical model for each area, finding the most cost effective location for each fire station, which could then be used in conjunction with the regions.
* An improved system for deciding national priorities involving the Regional Commander and National Commander.
- Introduction of a software package to lead those carrying out fire station reviews through a logical process with verification checks for each stage of the review.
- More authority for decision-making in the Regions.
- Longer-term planning should be introduced for Major Capital Works projects.

Improved priority setting across the country; there is a need to develop a system that measures the needs, costs, efficiencies and effectiveness of each proposal".

## 6.6 .4

Auckland

## New Approaches to Operational Development Planning

New approaches to operational development planning have emerged at three Areas: Auckland, Hamilton, and Wellington.

Auckland Area has recently carried out a comprehensive review of its fire station location needs. The report produced, Operational Requirements for Property Resources (1992), used the Standards of Fire Cover as the dominant criterion in determining those zones where there is an insufficiency or excess of cover.

The review identified deficiencies in earlier fire station exercises that had over-estimated demand growth in many zones and tended to build multiple
bay stations in preference to a more dispersed disposition of single bay stations. The latter approach is generally more effective in terms of minimising first appliance response time. The point was made that removing one existing station where there is an excess of cover would require movement of neighbouring stations to provide the required cover and the "domino" effect so created would "generate costs to proportions far beyond cost (sic) benefits gained".

Hamilton Area sponsored a study by a graduate student to develop a Fire Station siting strategy for Hamilton city. This took a "scientific approach", involving the development of models to "identify and test sites for stations". A regression analysis of response time against distance trayelled was carried out, and the "Response Regression Formula" used to test the cover provided by a number of options against the Standards of Fire Cover attendance time requirements.

Four models were developed based on the following:

1. achievement of the Standards of Fire Cover attendance times,
2. weighting zones in accordance with population (and thus frequency of fire calls),
3. consideration of back-up support, or
4. response time to identified "high risk structures*

Two broad options were evaluated - replacing the existing Chartwell station with one on a new site, and the establishment of a new station in addition to the existing two.

The Resource Management Analysis and Strategic Plan for Wellington District draws conclusions and makes recommendations along lines that the comparable Auckland report shies away from: that there be a major overtaul of fire station locations, involving the closure of seven stations and the opening of five or six "mainly smaller" stations. This it claims, would result in a more efficient disposition of resources in Wellington.

In the Resource Management Analysis section of the report, annual costs of operating each station in Wellington District are calculated, as "cost per output", where output is defined as "response to actual fires ... in each station's primary response zones". The performance of stations in achieving the Standards of Fire Cover was also assessed.

In the Strategic Plan section, population projections are used to anticipate sub district population movements.

Ability to meet the attendance time requirements of the Standards of Fire Cover was tested through a series of timed runs. These were used to determine the ability to meet the Standards in the primary response zones of each existing stations, and the areas that could, in theory, be covered by existing and possible new station locations.

The report points up a number of shortcomings in applying the Standards of Fire Cover for fire station location planning;

* at the outer edges of Urban Fire Districts, stations have to be sited two minutes apart to meet the second appliance attendance time
criterion, resulting in a over-protection in the area between the stations;

4 it is difficult to meet the attendance time requirement in an elongated fire district with a centrally-located station;

* "The Standards of Fire Cover (risk) Classifications appear to be broad in their application"

The report recommends:
*... that the Standards of Fire Cover need to be urgently reviewed in order to address application difficuties".

In spite of these reservations about the Standards, the report proceeds to use compliance with them as the primary criterion of assessing the current and altemative distribution/disposition of fire stations.

### 6.6.5

## Objective Analysis

The current operational development planning process involves an "objective analysis" of proposals at National Headquarters. The objective analysis evaluation system was introduced in August 1990 as an adaptation of approaches from overseas such as the Home Office model and the Rand Corporation method, amongst others.

The approach involves an analysis of fire call data to derive a distance/time regression line, and comparison of the arrival time forecasts suggested by these models with the requirements of the Standards of Fire Cover. The analysis identifies:

- localities where the Standards "cannot be met consistently";
- future urban developments that will affect cover;
- localities with high frequency of fires;
- "over-protected" localities;
how recent changes in fire station introduction has influenced Standards of Fire Cover performance;
how roading changes have affected performance;
how the distribution of fire calls within the district is changing over time.

Such analyses have been carried out for Rotorua, Tauranga, Dunedin, New Plymouth and Auckland.

The Tauranga analysis shows that, due to the shape of the district, four stations would be required to ensure the Standards would be met in all localities. Adding one new station and moving the existing two would ensure the Standards would be met at best $83 \%$ of the time - short of the performance target of $85 \%$. Moving the existing two (the recommended option) would achieve $80 \%$ coverage. The marginal improvement from $80 \%$ to $83 \%$ would require the additional capital and operating costs of another permanently manned fire station (amounting to around $\$ 900,000$ per year, according to the Wellington Resource study). The Objective Analysis also identified an area of high incidence of fire and suggests that a
targeted fire safety effor "would have a similar benefit to improving the Standards of Fire Cover coverage".

The Tauranga Objective Analysis shows flexibility of application of the Standards of Fire Cover, illustrating the excessive commitment of resources that could follow from over-zealous application of the Standards. The report suggests altemative means of providing fire protection.
6.6.6 International Experience and Approaches

The use of attendance standards for time and appliances is a widespread practise in developed countries. New Zealand's $8 / 10$ minute response for a "normal" risk appears typical although there is considerable variation in definitions of response time, particularly regarding what is included. A number of European countries (eg Denmark, France) are content with a 10 minute first appliance time.

A review of "Intemational Approaches to Standards of Fire Cover" by a Devon Chief Fire Officer (Currie 1988), found the use of an arrival time standard to be common but
*What appears to be almost universal ... is a lack of attention to outcomes as opposed to inputs. To locate fire appliances and firefighters to provide attendance times is not the real issue. Not even is the obviously important time of arrival. What counts is the actual capability to achieve a defined results".

Currie goes onto suggest an altemative approach, in which
"Standards should be based not just on attendance times but on the actual outcomes of firefighting intervention ... they should provide for accurately applied initial attendances appropriate to the risk in premises or property involved ... and should be varied across time and location to ensure that the topical need is catered for, not a notional or averaged need ... Most importantly the status of the standards should allow a clear understanding of the difference between the provision of oyerall fire cover resources and the needs for actual frefighting in premises once there is a fire, irrespective of the area in which the premises are found".

More recently, this form of approach has been implemented in the Netherlands, which has moved away from the normal approach to setting standards to a new system
"based on extensive examination of the fire risk existing in different types of buildings... the system provides guidelines on response time and on the nature and extent of the first attendance suitable for the risk associated with specific buildings" (CTIF 1992).

A consultant to the Independent Review Team discussed this approach with the head of the Fire Service's Directorate of the Dutch Ministry of Internal Affairs, R. Van Dijk and his senior policy adviser, Jan Jeulink in the Hague. The output of the Dutch fire services are measured by a number of criteria
such as casualties, loss of production due to fires in business premises, and damages containment. The system consists of a method to assess the risk of specific types of buildings, a calculation method to determine the effectiveness and the cover given by a Fire Service for each type of risk: and an aid to evaluate the data and to determine what measures (suppression or prevention) should be adopted.
-The recommended cover (attendance time and number of vehicles) of a type of building is based on the fire risk of the same". (Schaaf, 1992)

While the Dutch system still uses attendance time standards, these are now derived from a cost-benefit analysis of providing protection within certain times to each building/risk type versus the value of property damage saved. The arrival time standards are assigned to individual buildings, via their risk classification, rather than being applied to some "average" risk in a zone.

## RECOMMENDED OPERATIONAL DEVELOPMENT PLANNING APPROACH

Effective and efficient operational development planning for fire suppression is critical to the performance of the Fire Service as it deals with both the core business and the prime cost driver for the organisation.

The basis for operational development planning should be achievement of levels of protection agreed with the Commission. Whereas protection levels are currently based on the Standards of Fire Cover, which were framed by professional firefighters, the level of fire protection should be determined by continuous policy review in a circular process between the commission, which assesses social need and affordability, and the Fire Service, which can assess what is operationally achievable.

The operational development planning methodology should follow the same process as Commission policy analysis: translation of long-term objectives into shorter-term objectives with plans based on the costs and benefits of altematives. Under this framework, planning will firstly confirm and refine resource management aims and ultimately service policy.

### 6.7.1

Standards of Fire Cover
Attendance time should be regarded as an input, not an output. The attendance time standards have utility as benchmarks for operational performance. However, we believe that the Standards of Fire Cover have been over-emphasised in resource planning and in performance measurement.

The Standards of Fire Cover can be used to justify new stations or retention of existing ones where consideration of other factors (especially marginal improvement relative to cost) would suggest otherwise.

The Standards of Fire Cover can also be used as a cover for mediocre or deteriorating performance. So long as a District can meet its calls to the Standards requirements $85 \%$ of the time, there is no incentive to achieve marginal improvements in attendance times through reducing processing, turnout and travel times; nor to improve tactics to reduce attack time.

The risk classifications in the Standards are too broad, and their definitions ill defined. There is a large variation in true fire risk and hazard between different zones of "Normal Risk". Numbers of calls, and existence of particular risks are taken into account in practice by the Areas, but this is not explicit in the Standards.

The attendance times in the Standards of Fire Cover have undergone a change in status over the five years of their existence. Originally maxima, they have been referred to as "optimum" times in the 1992 Annual Report and a recent Press Release on the Chief Executive's letterhead. Arrival time standards can only be regarded as optimum in resource development planning if, when applied, they result in a disposition of resources that give the greatest operational effectiveness for a given level of expenditure, or if the best possible balance of economic costs and benefits has been achieved. If the Standards of Fire Cover were indeed optimum, it might be
better to arrive later rather than sooner in response to an emergency incident.

The time taken to attack fires is critical to minimising property damage, loss of life and injury. Just because the arrival times now enshrined in the Standards have been found to be "adequate" does not mean that in individual cases a reduced arrival time would not reduce damage or injuries. The Fire Service should be driving for increased performance and effectiveness.

The case for a four person minimum crew for effective and safe attack on a "working" structure fire has been well established. In those American cities making use of three man crews rapid backup from "manpower" squads is generally available. Nevertheless, manning of appliances should be an operational matter rather than a concern of a service purchaser and operational managers should have freedom to ensure the effectiveness and safety of their firefighters by other means if they choose.

The formulation of New Zealand's Standards of Fire Cover is typical of the way Standards are formulated and applied in developed countries. Nevertheless, a movement away to an approach based on outcomes sought and quantifiable outputs, rather than simply on inputs, has begun.

New Zealand is an example to the developed world in economic deregulation, and the benefits of the resurgent spint of innovation and competitiveness that followed are now being realised. New Zealand's Fire Service should be part of this movement, and not shy away from breaking new ground.

Operational Development Planning for Resource Disposition
The most evident area where planning based on the costs and benefits of altematives is needed is operational development planning for resource disposition and related operational personnel issues.

The current process of operational development planning leaves much room for improvement. No common methodology is employed by the Fire Service since the demise of the previous (but still official) process for Fire Station planning, based on the FSC 307. Some Areas have devised their own approaches to this problem, with varying success. Our survey shows there is a wish amongst most of the Area Commanders for a more defined approach to Fire Station location planning.

Where reviews have recommended change, these involve redevelopment of existing stations or creation of new ones and in no instance is the general fire station disposition adjusted to give a reduction in resource use within the same Standards of Fire Cover.

The closest example of a full-scale review was that recently undertaken in Wellington where five station closures and relocations were proposed through the Area. This led to public concem. and management is considering the implications.

The Wellington review was deficient in a number of areas, but nonetheless it is the nearest we have found to an objective and camprehensive review of
altemative dispositions of fire stations and we believe it should be looked at closely for important lessons.

Resource disposition is currently planned almost solely on the basis of fire incident requirements. Although this is a consequence of the requirements of the Fire Service Act, a statutory requirement to attend other emergencies would necessitate taking these into account.
6.7.3 Developing Better Planning: a Wellington Pilot Project

We recommend Wellington should be the location for a pilot project to develop techniques for simulation of resource disposition attematives using development planning methods to trace the costs and benefits of different levels of cover. This should take place under "laboratory conditions" with input from community and stakeholder interests, assessing fire risk by locality in the region.

There would be two phases of work in the project:

- Phase I: Needs Assessment

This would be a study of the current incidence of fires, the determinants of fires, risk assessment and forecasts, caried out by/for the Policy and Research Bureau, in order to determine the level of protection the Commission should purchase. (Figure 6.2).

* Phase II: Resource Disposition Planning

This would be concemed largely with generating and evaluating altemative ways of meeting the required level of protection, as specified by the Commission following the needs assessment, and would be camied out by the Fire Service Area Commands (Figure 6.3).

The pilot project should involve a common project team in both stages because of its methodology development content. There will te a need for close interaction between those involved in the two phases and there is a possibility that certain tasks may be transferred from one phase to the other.



Although there is an essential sequence between the two phases, with the dependence of Phase II on the output of Phase I, in programming the project much of the Phase II work could proceed simuhaneously with Phase I.

The pilot project would involve multi-disciplinary skills, and would be a technically demanding exercise. It would need professional project
management to ensure its technical objectives are met and there is a constructive dialogue between the project team and a steering body of interest group representatives.

The pilot project will have five direct benefits:

1. Review in a simulated operational context of the Standards of Fire Cover and the fire risk and resource use implications of varying them.
2. Higher quality service through closer targeting and tailoring of fire services to meet local needs.
3. Establishment of a first building block for the Commission to set up Area-by-Area reviews of need, risk, and the costs and benefits of alternative service standards. Commitment to completing a pilot project rigorously will allow development of a standard method which can be applied by other areas in operational development planning as well as be used as an operational input to fixed investment decisions by Regional General Managers.
4. Development of an objective tool for Area Commanders to use in resource allocation changes and the fine-tuning of operations through simulations and generation of a continuous information base.
5. A mechanism to permit internal and extemal interest groups to observe the trade-offs between benefits associated with different objectives and their costs. This would allow reasoned and informed debate and give an obvious focus for the putative stakeholder forum.

The IRT and its consultants initially derived the proposed approach to operational development planning from its own experience of development planning methods and applications in other sectors. Our views have been confirmed by subsequent discovery of the adoption of a similar method by the Dutch Fire Service; an intemationally recognised innovator in the field.

### 6.8 POLICY AND PLANNING RECOMMENDATIONS

6.8.1 Policy

* The separation of purchaser and provider roles should be cemented into policy formulation with clear distinction made between the respective policy roles of the Commission and Chief Executive.
- The Commission should formulate policies that relate to the overall need for and direction of fire suppression, prevention and safety activities carried out by the Fire Service; while the Chief Executive of the Fire Service should determine the corporate or business and operational policies needed to deliver the fire services sought by the Commission.
* The identification of Commission outcomes and outputs/services for the Govemment to purchase, such as fire suppression or promotion of fire safety, should be based on community needs.
- For the Commission to determine the fire services it wishes to obtain, it should have an independent capability to identify broad community needs and preferences, and to formulate and continually review its purchaser policies to verify and calibrate them according to community satisfaction.
* To assist the Commission realise its policy/purchaser role, we recommend that a Policy and Purchase Bureau be established, independent of the Fire Service, to provide policy advice directly to the Commission.
- The Commission should make direct stakeholder contact through formal establishment of a stakeholder forum to directly assess proposed services to be purchased.
* The Commission's policy analysis capability should be sufficient to assimilate issues and policy proposals in order to prioritise resource allocations and balance conflicting stakeholder interests.

The detailed nature of, and standards required for, each of the services to be purchased should be determined by Commission policy. One example would be the level of protection sought in fire suppression, or the Standards of Fire Cover. The Bureau should review these standards to ensure they adequately reflect the range of needs and risks that exists within the community and infrastructure of New Zealand.

* The Commission should establish policies conceming how it is to purchase the required services: including the selection of providers, determination of service contract budgets for each, their negotiability, and assessment of tradeoffs between quality, timeliness and price.

4 Budgets should follow the prioritisation of the services and activities. Within the needs-based allocation of resources, the Commission will be able to negotiate alternative outputs packages with providers.

* The Bureau, having undertaken an analysis of purchase options, should provide the Commission with advice on purchase choices: the advantages and disadvantages of altematives and recommended purchases.
- The Commission will need to independently assess whether it has received value for money for the services it purchases. The principal check on service delivery should be contractual obligations for providers to give evidence of their having met negotiated outputs measures and proof of the comparative cost effectiveness of services offered before the service provision contract was agreed.
* Fire Service policy, at both the business level and the operational level, should be formulated through a recognised objective process of policy analysis which forms an integral pant of management and decision-making.

Planning

- Corporate planning within the Fire Service should have the dual purpose of mapping out the direction and development of the organisation, and formally and publicly stating service agreements made with the Commission.
* Under a regionalised structure the process should generate plans on three ascending levels: at the Area level, with Area Business Plans; at the regional level, with Regional Business Strategies, and at the national interface of the Fire Service and Commission, with the Corporate Plan.
- Planning at the Area level should be primarily concemed with the efficient and effective delivery of contracted services. The focus should therefore be very much on performance against agreed output measures within agreed levels of funding.

Strategic management issues that will affect delivery of the service contract with the Commission, and the shape of other contracts in the medium term, should be identified within the Regional Business Strategies. These should relate to threats and opportunities for the achievement of Fire Service business objectives.

* The culmination of the "bottom-up" planning process will be the Fire Service Corporate Plan(s). The Fire Service Corporate Plan should outline both the service agreement between the Fire Service and its primary customer, the Commission, and the strategic issues, goals, directions and other activities to be undertaken by the Fire Service in line with its own mission and objectives.
- The basis for operational development planning should be achievement of levels of protection agreed with the Commission. The level of fire protection should be determined by continuous policy review in a circular process between the Commission, which assesses social need and affordability, and the Fire Service which can assess what is operationally achievable.
- The operational development planning methodology should follow the same process as Commission policy analysis: translation of longterm objectives into shorter-term objectives with plans based on the costs and benefits of altematives. Under this framework, planning will firstly confirm and refine resource management aims and ultimately service policy.
- Attendance time should be regarded as an input, not an output. The attendance time standards have utility as benchmarks for operational performance. However, we believe that the Standards of Fire Cover have been over-emphasised in resource planning and in performance measurement.
- We recommend Wellington should be the location for a pilot project to test the proposed development planning methods of simulator resource disposition altematives and evaluation of the costs and benefits of different levels of cover. This should take place under "laboratory conditions" with input from community and stakeholder interests, assessing, fire risk by locality in the region.

7. 

FINANCIAL CONTROL \& REPORTING PROCEDURES

7.

## FINANCIAL CONTROL \& REPORTING PROCEDURES

## 7.1 <br> INTRODUCTION

In the course of our review it has become very apparent that a significant number of the Fire Service's financial control and reporting deficiencies have been identified and reported on in previous years. The absence of timely response to issues in the past in itself emphasises the need for financial reform.

The primary objective of our reconnaissance review has been to:

- develop our understanding of the statutory and organisational influences effecting financial decision-making:
- identify and access current financial performance criteria;
- evaluate reporting procedures:
- determine the role of the finance function within the Fire Service;
- identify opportunities for change.

To achieve these objectives we have focused on key Fire Service financial processes.

Our conclusions and recommendations expressed in this chapter are based upon the assumption that the "provider" role is carried out by one operational structure. When three separate and independent organisations are established in accordance with recommendations of this report our comments would apply to each unit. Further comment on the role of finance in altemative organisational structures is made in section 7.9.

We acknowledge that many of our comments in this chapter are already recognised by the Chief Executive and his manzgement team and that changes, or at least plans to change, are already taking place in a number of instances.

### 7.2 LEGISLATIVE FRAMEWORK

Financial policy and controls are broadly determined by the legislative framework surrounding the Fire Service.

The New Zealand Fire Service was established by the Fire Service Act 1975. The New Zealand Fire Service is controlled by the New Zealand Fire Service Commission which was constituted by the same Act.

Section 45 requires the Commission to submit to the Minister, by 30 April each year, its estimates of the expenditure for that financial year. Section 46 requires the Commission to keep full and correct accounts and records and to prepare statements of account to show fully the financial position of the Commission and the financial results of its operations. These accounts must be forwarded to the Minister.

Approval of the budgeted expenditure of the Commission rests with the Minister of Internal Affairs, in consultation with the Minister of Finance.

This general framework of accountability is reinforced by section $4(7)$ of the Fire Service Act. This deems the New Zealand Fire Service Commission to be a local authority for the purposes of the Local Authorities Loan Act 1956 and the Public Finance Act 1977.

The Local Authorities Loan Act holds important financial consequences for the Commission. These are discussed in section 7.7.

The Commission is deemed a Crown Entity (fourth schedule of the Public Finance Act 1977). Consequently the Commission is required to meet the reporting requirements set out in Part $V$ of the Public Finance Act.

## 7.3

7.3.1

## ORGANISATION STRUCTURE - FINANCE

Within the framework described above the Commission organises and performs all financial activities.

The Fire Service Act also prescribes aspects of the Commission's intemal structure. Section 15 establishes the authority of the Commission to delegate the functions, duties and powers ascribed to it by the Act. With the exception of the power to borrow money (section $15(3)(b)$ ), all responsibility for financial activities may be delegated by the Commission.

## Manual of Finance

The delegation of responsibility for administration of the Commission's financial affairs is formalised by the Manual of Finance.

The Manual is issued by the Commission as a general instruction. Its purpose is to:
"Define the financial systems and procedures of the New Zealand Fire Service,"
"Set out the Commission policy in the different areas of finance ... *
The Manual sets out general financial procedures and information, and formalises the responsibilities for the conduct of those procedures. Specifically:
"A Finance Division is established at National Headquarters to perform all finance activities as directed by the Commission."

Thus the Manual of Finance delegates responsibility for the performance of the finance function to the Finance Division, with the exception that:
"Regional Secretaries are responsible through their Regional Commanders for fulfilling the finance function within each region."

The chart presented in Figure 7.1 describes the current organisational structure and reporting lines as they apply to financial activity. The reporting lines linking those with financial responsibilities are determined by the New Zealand Fire Service organisation structure and chain of command set out in the Manual of Administration.

Internal reporting centres on the monthly financial reports. These reports are primarily completed by the Budget Manager, and the Director of Finance formulates ongoing management information to be provided to the Commission. To date these reports have been largely budgetary in nature, reflecting actual versus budget in the areas of:

- operating expenditure;
- debt servicing costs;
- income:
* capital expenditure; and
* funds and special nature accounts.

Figure 7.1: Current Finance Organisational Structure


A number of financial activities are driven by other National Headquarter divisions not displayed on the organisational structure chart. For example, the programming of capital expenditure is largely conducted by the Supply \& Maintenance and Works \& Property Divisions.

### 7.3.2 <br> Finance Division

The Manual of Finance states that -
The Finance Division at National Headquarters operates under the direction and control of the Director of Finance who is responsible to the Commission for the finance function."

## Responsibilities of the Finance Division

The role of the Finance Division is set out in section B3 of the Manual of Finance under a number of headings including the following:

- Providing financial advice to the Commission and initiating financial policy recommendations.
- Implementation of New Zealand Fire Service Commission finance policy.
* Supervision and continued review of all Fire Service financial systems.
- Control of cashflow and maximising use of credit funds.
- Co-ordination of:
- production of estimates
- management reporting
- annual accounts
- resource management.
- Management of the National Accounting System of the Fire Service.

Carrying out of financial investigations and providing finance reports on proposals to the Commission involving finance.

* Co-ordination and development of EDP requirements.
* Establishing and maintaining systems of loans administration.
- Direction of National Headquarters Accounts Branch, budgeting of expenditure and revenue and receipt of statutory revenue.
- Maintenance and development of the Fire Service Financial Records of stores.
- Processing and monitoring of National Headquarters financial transactions.
* Liaison with entities outside of the Division.

In our view the listing above does not clearly identify the overall responsibility of the Finance Division and indeed, it implies that there are financial roles which fall outside the responsibility of the Finance Division. We therefore recommend it be redefined emphasising the fact that the Director of Finance is responsible, through the Chief Executive, for developing and maintaining sound accounting and financial practices and in addition is responsible for the quality and integrity of financial information produced.

The IRT recommend that the role of the Finance Division be redefined in broad terms along the following lines:
"The Finance Division is responsible to the Chief Executive and through him to the Commission for the integnity of the financial accounting systems and the financial reports required by management, the Commission, Ministers, and other interest groups. In particular, the Finance Division should be part of the team responsible for the development of business plans, budgets (capital and revenue), asset and liability management and control procedures throughout the whole organisation. The Finance Division is also responsible for monitoring actual results against plans, budgets and financial performance standards, and for reporting on results to appropriate parties."

### 7.4 THE BUDGET PROCESS

Section 45(3) of the Fire Service Act 1975 requires:
"... on or before the 30th day of the April in each year, the commission shall prepare and submit to the Minister of Intemal Affairs estimates of expenditure (including capital expenditure) it proposes to make for the next financial year, and shall include as part of those estimates a statement on the sources of funds that are proposed for that expenditure".

To meet this requirement the Fire Service undertakes the following procedures:

- Areas, Regions and National Headquarters divisions prepare operating expenditure budgets based upon "blocks" of expenditure allocated by Finance Division.
- Regional Commanders and Divisional Directors prepare capital expenditure applications (in order of prionity) based on perceived operational needs.
* The capital expenditure forecast is subject to funding analysis. This analysis allocates the forecast capital expenditure amongst the available funding sources - revenue, property realisations, ancillary vehicle sales, Reserve Fund, and, as a balancing item, borrowings.
- Through a process of consultation involving the Chief Executive, National Commander, Regional Commanders, Finance Division, Regional Secretaries, Regional and Divisional Operating and Capital Expenditure Budgets are finalised to arrive at the Annual Budget for submission to the Minister.
- In the process of approving the Annual Budget the Minister caps total capital expenditure and implicitly approves the financing of a proportion (approximately $40 \%$ in recent years) of the total capital expenditure through revenue.

Our view of budget related processes has revealed the following:
Area and Regional Business Plans are not standardised and are inconsistent in the manner in which they address strategic outputs specified in the Corporate Plan.

Considered budget development is critical to ensuring resources are allocated to strategic outputs. Current budgeting procedures require fundamental attention.

## Recommendations:

- If Regional and Divisional budget holders are to be held accountable for their budgets they must assume prime responsibility for development of Annual Budgets on a "bottom up" basis. The role of the Finance Division should be restricted to general guidance, coordination, consolidation and final approval in accordance with overall prionities and the funds available.
- Regional and divisional business plan development should be coordinated with budget preparation.
* Compliance and review procedures to ensure business plan and budgets are co-ordinated and reflect corporate plan outputs should be developed and implemented.


## 7.5

## ASSET MANAGEMENT

### 7.5.1 Inventory Management

Inventories and stores are held at four different levels throughout the Fire Service, they are: National Headquarters Stores, Regional Headquarters Stores, Area Headquarters Stores and Fire Stations.

For accounting purposes, stores and inventory are expensed when they are issued to the Regional Store.

Inventory systems (manual and computer based) are maintained by Supply \& Maintenance, Finance, National Headquarters Store and Regional Stores. Information relating to slow moving and obsolete stock is not reported on throughout the year. We noted a recent management report prepared by Internal Audit in which it was suggested that the book value of obsolete stock could be as high as $\$ 1.2$ million.

The maintenance of multiple inventory systems results in unnecessary processing duplication.

The lack of national inventory details means economic order quantities and 'just-in-time' management cannot be implemented in an effective manner.

There are no formal policies goveming minimum and/or maximum stock levels for inventory lines. Twelve months usage estimates appear to be the only guide used. As far as has been possible to ascertain there is no monitoring or reporting of stock turns or stock levels. Obsolescence reviews are not periodically periormed.

Inventory imposes a financial cost on the Fire Service because of the interest holding cost attached to it. From a financial point of view the ideal situation is the holding of zero inventory. Purchases are made as required and items issued immediately into use. Clearly this is not a tenable position for the Fire Service, given the nature of the goods utilised and the requirement for instant readiness and response to incidents, amongst other considerations. However, neither is it tenable for an organisation to overlook the relationship of holding costs to inventory management variables such as demand, lead times, safety stock levels and serviceability. The benefits attainable for any stock holding must be balanced against the cost of holding the stock.

Recommendations:

- An integrated inventory system should be implemented throughout the whole organisation.
- Inventory control responsibilities should be reviewed with a view to establishing clearly defined responsibilities tetween Supply \& Maintenance Division, Finance Division and the Regions.
- Cost/benefit analyses of various inventory holding levels and purchasing policies should be prepared and reviewed on a regular basis.


## 7.5 .2

Property Overview

Plant, Equipment and Appliance Overview

Fixed Assets and Depreciation

## Property, Plant, Equipment and Appliance Management

The Fire Service has approximately 580 buildings throughout New Zealand. The net book value of land and buildings at 30 June 1993 was reported as $\$ 136.7$ million.

Net book value of assets employed at 30 June 1993:

|  |  | $\$ \mathrm{M}$ |
| :--- | ---: | ---: |
| Appliances | 83.8 |  |
| Ancillaries | 3.9 |  |
| Communication Equipment | 7.8 |  |
| Plant and Equipment | 9.1 |  |
| Fumiture and Fittings |  | 3.1 |
|  | Total | $\$ 107.7 \mathrm{M}$ |

Information relating to the written down value of individual items (and consequently the gain or loss of assets disposed of) is not readily available.

Our enquires indicate the following:

- Regional Commanders prioritise capital expenditure applications based on operational needs.
- There are a lack of formal guidelines to assist in prioritisation.
- Standardised cost benefit analyses (factoring in finance costs) directly linking proposed capital expenditure with measurable strategic outputs are not prepared as a matter of standard policy.
(Note: Refinement of output definition and development of output measurement systems are required for this purpose.)
There is a consequent lack of measurable objective criteria to support capital expenditure and allocation decision-making.

Leasing opportunities in respect of Fire Service premises, appliances and other equipment are not considered in the decision-making process.

## Recommendations:

- All fixed assets registers should be fully integrated with General Ledger balances so that the total balance of all items in the Fixed Asset Register (both cost and written down value) can be agreed with General Ledger balance on a monthly basis.

4 Consideration should be given to the development of standardised procedures and criteria for different classes of capital expenditure applications. Such criteria should include cost benefit analysis (factoring in finance costs) directly linking proposed capital expenditure with measurable strategic outputs.

- Leasing opportunities available to the Fire Service should be investigated and assessed against asset purchase.

Repairs and Maintenance Expenditure

Property Maintenance

Plant, Equipment and Appliance Maintenance

Total repairs and maintenance expenditure for the financial year ended 30 June 1993 was $\$ 10.2$ million.

Property maintenance management involves both National Headquarters (Works \& Property Division) and regional personnel.

The Works \& Property Division prepares detailed budgets at an individual property level of each Region for the purpose of justifying annual regional budgets. As far as we have been able to ascertain this information is only compared to actual at regional level. It appears:

- there is no policy requiring formal maintenance tender or quote procedures to be followed.
- no formal policy exists for property inspections, monitoring maintenance contracts and maintenance cycles.
- National Headquatters do not monitor or review regional maintenance programmes on a consistent basis.
- there is no system or procedures to formally evaluate property maintenance procedures or the effectiveness and efficiency of maintenance expenditure between regions or at a national level.

Regional plant, equipment and appliance maintenance is the responsibility of Regional Commanders.

- National Headquarters does not review or monitor the regional maintenance programmes.
- There appears to be no system or procedures to formally evaluate regional budgeting, planning and maintenance procedures, and the effectiveness and efficiency of regional maintenance expenditure.


## Recommendation:

It is recommended that management information systems be developed and implemented to effectively control and monitor maintenance expenditure, taking into account the detailed matters referred to above.

The reporting systems should also provide information relating to the general state of maintenance of major assets, with particular reference to maintenance work which is not being carried out for budgetary or other reasons. For example, the IRT was advised that the general state of maintenance of buildings is steadily deteriorating because of budgetary constraints but the IRT is not aware of any regional or national reports providing a comprehensive overview of the situation.
7.6
7.6.1 Budgetary Control

Budgetary control is the primary financial control exercised over regional operations. Monthly management accounts are geared towards reporting of actual against budget. Actual expenditure (both general and capital) for the year to date are compared against budget and the "Unexpended Balance" reported.

One of the primary functions of the Regional Secretary is to ensure expenditure does not exceed budget at year end. Instances were noted where "cushions" are deliberately built into budgets to safeguard against unfavourable budget variances.

## 7.6 .2

7.6 .3
7.6 .5

REGIONAL REPORTING \& CONTROL
As noted in 7.3 certain financial functions are devolved to the Regions.
Regional Secretaries and accounting staff are involved in budgetary control, payroll, creditors, debtors, fixed asset and inventory administration.

## Creditors

Regional accounting systems do not include creditor systems which facilitate full accrual accounting on a monthly basis. Expenditure is recognised on a payment basis plus unpaid invoices held, which is not conducive to accurate monthly expenditure reporting on an accrued basis.

As we understand it, each Region is free to adopt its own credit policy in respect of creditors payments.

Debtors
Accounts receivable systems are not standardised between Regions. Debtors aging control and practices to ensure timely payment are left to the discretion of each Region and no report is made to National Headquarters.

## Fixed Assets

Fixed asset systems are not standardised between Regions. Regions do nol depreciate fixed assets and gains or loses on disposal are not reported in Regional records. Accordingly Regions are not "charged" with the cost of asset utilisation.

## Inventory

Regions do not maintain perpetual inventory systems for accounting purposes. Inventory values in the General Ledger are adjusted each year following the annual physical stocktake.

## 7.6 .6

## Conclusion

We are of the view that financial responsibility has been devolved to Regions without accompanying control procedures.

Creditor payment practices, aged debtor analysis and regional inventory levels (including slow moving stock and obsolescence) are not consistently monitored or reported on beyond the Region concemed.

Debtors, creditors and inventory are all items of working capital. The objective of working capital control is to ensure that the minimum possible resource, consistent with efficient operations, is invested in working capital.

At present there are no control procedures in place to encourage efficient working capital management in the Regions. This objective could be achieved by either:

- establishing formal working capital management policies and ensuring Regions report against established criteria.
and/or
- imposing National Headquarters interest charges on regional working capital requirements.


## Recommendation:

We strongly recommend that the feasibility and relative merits of the altematives be considered. Fundamental issues such as budget development practices and the role of budget holders in the development process as discussed in section 7.4 need to be addressed before change can be effected.

## 7.7 <br> TREASURY

An indepth examination of Treasury management opportunities is beyond the scope of our reconnaissance review. Instead we will focus on influences effecting Treasury operations, the ability of the Treasury function to manage Treasury activities within existing constrains and the monitoring and reporting of Treasury performance.

An appreciation of funding methodology, as determined by legislation and Commission policy, is a pre-requisite to any assessment of prevailing fund management practices. We summarise as follows:

### 7.7.1

7.7.2

## Income

Fire Services Act 1975, section 47, subsections (3) - (8). The difference between Govemment Grants and levies received and actual net expenditure (representing uncommitted surplus or deficit) is taken into account in calculating the income and expenditure of the Commission for the next financial year.

The uncommitted surplus represents funds available for investment (subject to constraints discussed below) and generation of interest income and capital gains. The funds are made available to the Commission free of funding costs.

- Fire Services Act 1975, section 58, subsections (1) - (5). Funds generated on the sale of assets are taken to the Reserve Fund, invested in accordance with the Trustee Act 1956 and used for future capital expenditure purposes. The proceeds of Reserve Fund investments are retained for the benefit of the Reserve Fund.

Investment income derived on Sinking Fund investments (discussed further below) is implicitly reserved for debt retirement.

### 7.7.3 Expenditure

- Fire Services Act 1975, section 45(7)(a). This provision specifically allows for a proportion of the approved capital expenditure for the year to be funded from revenue. In practice this proportion has been set at $40 \%$ in recent years.

Through this process a proportion of the Commission's annual capital expenditure has been funded free of finance costs.

- Fire Service Act 1975, section 58(2):
"The Commission shall at the end of each financial year pay into the Reserve Fund all money included in the approved estimated expenditure for capital expenditure from revenue which has not been expended during the year."

Through this process (and the crediting of asset sale proceeds to the Reserve Fund, refer above), capital is provided free of funding costs, for future capital expenditure requirements.

* Subject to expenditure budgetary constraints, annual Sinking Fund appropriations are charged to the operating statement. Through this process the repayment of borrowings for the purpose of capital expenditure is charged to the operating statement (ie funded out of revenue).
- Subject to expenditure budgetary constraints interest on borrowings for the purpose of capital expenditure as charged to the operating statement (ie funded out of revenue).


### 7.7.4 <br> Debt

Section $4(7)$ of the Fire Service Act 1975 provides that the Commission is deemed to be a local authority for the purpose of the Local Authorities Loans Act 1956. Section 85 of the Act provides for the establishment of Sinking Funds for repayment purposes but it is not obligatory.

Investments
Section 46 of the Fire Service Act 1975 provides that the Commission may invest money only in accordance with the Trustee Act 1956. Accordingly, authorised investments are limited to Term Deposits, Shor-Term Money Market Transactions, Transferable and Negotiable Centificates of Deposit, Bank Accepted Bills of Exchange, NZ Govemment Securities and Foreign Exchange Deposits.

## Consequences

Interest charges on funding requirements are at best partially (and then only temporarily) imposed on the Commission. As a result financial disciplines encouraged by interest costs are essentially lost.

A substantial proportion of the Commission's investment resources are derived free of investment funding cost.

The requirement to establish Sinking Funds for debt repayment has the following implications:

- The Commission is required to repay the purchase price of assets funded by debt, over the period of the debt maturity. In many instances this period will be substantially less than the asset's economic life. This would be regarded as an unattainable situation for a normal commercial operation.
- It exposes the Commission to interest rate risk on net debt represented by debt borrowings less Sinking Fund investments. The management of this exposure is impeded by the Commission's inability to use interest rate risk management instruments such as Interest Rate Swaps, Forwarded Rate Agreements and Interest Rate Futures (these restrictions in turn arise from the Loans Act).

The Commission's inability to use funds representing levies in advance to retire debt (it is believed this would constitute borrowing outside the terms of the Loan Act and/or a breach of the Trustees Act) further impedes cashflow and interest rate risk management and results in interest rate spreads (representing the difference between debt interest costs and investment yields) being unnecessarily paid to other parties.

Cash Management
Cash forecasting is a key activity and discipline for the financial well being of any organisation. It underpins much of the process of cash management, provides the information necessary for effective funds management, and disciplines working capital management.

Cash forecasting is formalised in the Fire Service via the monthly cashflow forecasts prepared by Regional offices. These are consolidated by the Treasury Manager, together with information supplied by other National Headquarter divisions (particularly Supply \& Maintenance and Works \& Properiy). The Revenue Officer (responsible for monitoring and collecting levy payments [considered further in section 7.81) reports directly to the Treasury Manager,

In our view cash forecasting (and therefore cash management) is hindered by the following:

- A fundamental absence over control of levy revenue. Levy returns by insurance companies are not monitored and analysed for the purpose of identifying and understanding trends. Increased knowledge in this area would assist revenue forecasting.
- Regional accounting systems do not include creditor systems which facilitate full accrual accounting. Details of commitments in the form of unapproved invoices are not readily available. Accordingly we perceive the accuracy of regional forecasts are probably impaired.
- The accuracy of Regional forecasts are not monitored and reported on; incentives for accurate forecasts are not provided.


### 7.7.8 Treasury Reporting

As far as the IRT have been able to ascertain Treasury performance indicators have not been reported on at any level. Relevant indicators in this regard include:

* Investment portfolio yie!ds vs prevailing market yields.
- Unrealised gains and losses on investment portfolio holdings.
- Realised gains and losses on investment disposals.
* Foreign exchange risk exposure (and management thereof).

4 Interest rate risk exposures (and management thereof).
In the course of our review the IRT has noted that:

- Gains and losses on forward foreign exchange contracts taken out to hedge asset purchases have been taken to the profit and loss account as opposed to being treated as an adjustment to the purchase price of the asset in accordance with SSAP21.

4 Investments in Govemment Stock are recordこd at cost, discount/premiums on acquisition are not amortised over the holding period resulting in the distortion of "true" investment income.

- Govemment Stock portfolio management has been significantly influenced by budgetary considerations at the expense of prudent investment decision-making. Treasury personnel have commented that opportunities to realise gains on Govemment stock holdings (which would otherwise have been taken) have not been taken due to resulting budget surplus implications.


### 7.7.9

Conclusions

The IRT believes that the Fire Service Act 1975 (and the Local Authority Loan Act 1956) restricts effective management of the Commission's finances and impedes accountability.

If the Commission is to be held accountable for its Treasury activities it must have the authority to "manage". The current legislative framerork does not provide the Commission with this authority. Quite the contrary, it severely restricts its ability to "manage".

The IRT believes existing Treasury internal control and reporting procedures are inadequate and require considerable development before increased responsibilities can be contemplated.

The view of the IRT is that there are considerable benefits to be derived from enhancement of cash management practices and procedures.

## Recommendation

The IRT recommend that:

- legislation be amended to enable the Commission to manage its financial resources in accordance with modem practices and procedures; and
- a Treasury function be established as a separate reporting (and perhaps profit) centre as a comerstone to Treasury reform.


## $7.8 \quad$ FINANCE DIVISION

The Finance Division's responsibilities as established by the Manual of Finance, have been outlined in detail in section 7.3.

In this section we discuss the Finance Division's key functions of revenue control, accounting practices and Board reporting.

### 7.8.1 Revenue Control

Over $90 \%$ of the annual income of the Commission is derived from the proceeds of a levy in temms of section 48 to 50 of the Fire Service Act. Section 51 of the Act provides for the audit of contracts of fire insurance. Extracts from that section are as follows:
*(1) Every insurance company and any agert or other representative of a company ... shall at all times ksep in safe custody all records of contracts for fire insurance, including full protection of each contract and the amount of the levy and the date of its payment to the Commission.
(2) For the purpose of ascertaining whether the levy for which any insurance company or its agent is liable has been paid and whether the provisions of this Act have been complied with, the Commission or its authorised officer or agent may from time to time examine the records (including the records of contracts of fire insurance) and the books and accounts of the company or of its agent, and it shall be the duty of the said duly authorised officer or agent of the Commission to report the results thersof to the Commission.

As far as we have been able to ascertain, no direct initiative has been taken by the Fire Service Commission to apply this provision. Irstead they rely upon the inspections carried out by the Earthquake and War Damage Commission whose income is derived from the same source. Although regular informal discussions take place between EQC inspectors and the Fire Service Commission's Finance Director no instructions or requests appear to have been forwarded to the EQC in recent years, nor does any inspection agreement or contract exist.

## Recommendation:

Because of the vital importance of this source of revenue, the IRT recommend that the Commission should be playing a more positive audit role for the following reasons:

- It would provide greater assurance to the Fire Servize Commission that all levy income is being properly accounted for.
* The knowledge acquired in the course of such audits should considerably enhance the ability of the Commission to forecast its future income with reasonable accuracy.

A practical means of implementing a suitable audit of leviss would be to extend the responsibilities of Internal Audit to cover the following:

Review the inspection coverage and procedures carried out by EQC inspectors and negotiate any changes or extensions considered necessary or desirable in the interests of the Commission.

* Participate with EQC in the carrying out of a proportion of the inspection programme.
- In collaboration with EQC and through discussion and negotiation with levy collection companies and agents, and their auditors, establish audit programmes designed to check that satisfactory control procedures are in place which will ensure that levies which should be applied and collected are being properly accounted for and transferred to the Commission in terms of the Fire Service Act.

7.8 .2<br>Management<br>Accounting

## Accounting Practices

Management accounting practices establish the basis for financial
information flows to management. information flows to management.

Practices in this regard typically include:

- preparation of monthly financial statements.

4 analysis and explanation of financial results against budget, forecasts and (perhaps) prior periods.

- analysis and explanation of resource management indicators such as inventory, debtors and creditor levels (and related ratios and statistics) against budgeted or prior period levels.
- analysis and reporting of Treasury/fund management performance.

Management accounting practices within the Fire Service are geared towards the production of monthly board reports for submission to the Commission. The IRT's review of the Fire Service management accounting practices revealed the following:
4 A consolidated national balance sheet has not been prepared on a monthly basis. In the past a balance sheet has only been prepared for the purposes of preparation of the annual financial statements.

- Accordingly integrated management accounts (including operating statement, movements in reserves and balance sheet) have not been prepared on a monthly basis.

4. Expenditure analysis is limited to budget comparisons.

- Treasury performance is not monitored and reported on (refer 7.7).

The failure to produce monthly balance sheets, both regional and national has meant that the level and quality of the assets, liabilfies and reserves of the Commission have not been reported on a regular basis throughout each year. In the IRT's opinion this situation is unacceptable

Financial Accounting

The IRT acknowledges that systems facilitating the preparation of integrated monthly accounts are currently being developed as a matter of priority. The IRT firmly support developments in this area.

In the course of the review we have noted the following practices which influence the accuracy and consistency of cost measurement in any given reporting period and thereby the accuracy of output costing.

- Gratuities - Sections 55 and 56 of the Fire Service Act provide for the payment of a gratuity on the death or retirement of members of both the Fire Service and the Voluntary Fire Service with more than ten years service. The Commission maintains a Gratuities Fund for the purpose of meeting these payments. The liability currently revealed in this fund (incorrectly described as a 'reserve') is $\$ 0.8$ million.

Calculations supplied by Fire Service financial personnel suggest the actual liability accrued as at 30 June 1993 was approximately $\$ 16.8$ million. Clearly the gratuity liability at 30 June 1993 was grossly understated.

The Commission's current practice is to recognise gratuity liability as an expense on payment, as opposed to recognition on an accrual basis. In light of the above it would appear this practice has been significantly understating annual gratuities expense in past years.

## Recommendation:

That to accurately report and monitor gratuity liability the Commission should fully provide for the accrued liability in both its management and statutory accounts.

- Leave Provisions. The Commission's current practice in respect of holiday pay and retirement leave is to recognise these items as expenses in the year in which they are paid.

As at 30 June 1993 unprovided for holiday pay and retirement leave was estimated at \$4.2 million (although it was disclosed as a note in the annual accounts).

As in the case of gratuities, to accurately report and monitor holiday pay and retirement leave the Commission should fully provide for this accrued liability in the Annual Accounts and recognise holiday pay and retirement leave as expenses on an accrual basis (in accordance with generally accepted accounting practices) in the future.

- Foreign Exchange Gains and Losses - Gains and losses on forward foreign exchange contracts relating to asset purchases are taken to the operating statement as opposed to being treated as an adjustment to the purchase price of the asset in accordance with generally accepting accounting practices.

Foreign currency denominated purchases are significant. The treatment of exchange gains and losses in this manner distorts operating results in the year of cover and mis-states asset cost with a corresponding effect on future period depreciation charges.

## THE ROLE OF FINANCE IN AL TERNATIVE ORGANISATION STRUCTURES

The role of the Finance Division and the Finance Director in the altemative organisation structures proposed is clearly dictated by the degree of responsibility and accountability deemed appropriate to be devolved to operating units. The devolution of responsibility and accountability is a fundamental consideration in the development of any organisational structure.

When considering the role of finance in both the interim and final structures recommended by us the following require particular attention:

- Funding methodology
- Treasury functions
- Competition between operating units ("Suppliers")
- Performance benchmarking between suppliers
- Capital allocation/structure

As a general guideline, fundamental assumptions, underlying principles and philosophies which could evolve within the interim organisation structure and the final completely devolved corporate entity structure are set out in the table below and in Annex 4.

Finance Division Responsibilities in Alternative Organisation Structures


### 7.10 <br> INTERNAL AUDIT

The Commission employs two Internal Auditors, both qualified accountants, with responsibilities for carrying out both financial and management audits. They operate under the direction of the Director of Planning \& Review and their reports, after the approval of the Director, are forwarded to the Chief Executive. A summary of all reports are subsequently forwarded to members of the Commission.

In addition there is an Operational Auditor who also reports to the Director of Planning \& Review. The comments in this section, however, relate only to the financial and management audits.

The major responsibility of the Internal Auditors is to check that the procedures set out in the Manual of Finance and other releyant manuals are being carried out and to report their findings. In addition, they carry out special checks in circumstances where matters have been brought to their attention and appear to warrant special attention.

All Regions (including National Headquarters) are visited once in each year for a period of approximately two weeks each. A number of areas are also visited each year.

Approximately one quarter of audit time is devoted to reviews and examinations of specific systems and procedures for the prime purpose of making recommendations for improvements.

## Recommendation:

In our view the status and responsibilities of Intemal Audit should be considerably enhanced.

In this report we have stressed the importance of developing and implementing effective accounting and control systems together with consistent and comprehensive reporting procedures. It is of equal importance to ensure that, once developed, such procedures are maintained at all times.

It is for this reason that we place strong emphasis on the value of maintaining an intemal audit team of proven quality and experience, possessing a high degree of authority and independence and with full access to all accounting and supporting records they require. They should report directly to the Chief Executive and also possess the right of direct access, in appropriate circumstances, to the Chairman of the Commission or to the Chairman of the Audit Committee (see section below).

Although most of the audit programme would be agreed with the Chief Executive it is important, in the interests of audit independence, that a reasonable amount of time is made available internal audit to camy out their own programme of work regardless of the wishes or direction of the Chief Executive or his staff.

An effective intemal audit team will not only detect and report on weaknesses in systems and procedures. They will also find many opportunities to make recommendations for improvement, particularly in relation to 'value for money' or management system audits. When fully
developed, the function of internal audit is likely to be not only a major factor in ensuring adequate systems and procedures are being adhered to but is also likely to be the catalyst for effecting improvements in efficiency and reporting procedures which will almost certainly result in significant savings to the Commission.

## Audit Committee

We strongly recommend that the Commission give serious consideration to the establishment of an Audit Committee. It should consist of two or three suitably experienced members of the Commission, though the Chief Executive, Finance Director and Internal Auditor would normally be in attendance.

The function of the Audit Committee is to hold meetings as required with both extemal and intemal auditors for the purpose of reviewing their reports on significant matters coming to their attention and to satisfy themselves that matters of concern to both intemal and extemal auditors are brought to the attention of the Commission.

The Audit Committee should meet at least twice each year and on other occasions as required. Minutes of meetings should be kept with copies provided to members of the Commission.

### 7.11 ANNUAL FINANCIAL ACCOUNTS

The Statutory reporting requirements of the Commission are set out in section $46(5)$ of the Fire Service Act and in section 41 of the Public Finance Act.

Section 46 Fire Service Act:
"(5) The Commission shall, as soon as possible after the [[30th day of June]] in each year, cause to be prepared such statements of account as may be necessary to show fully the financial position of the Commission and the financial results of its operations for the financial year ending with that day, together with a report on its operations for that year, which report shall review all matters relevant to the Fire Service. The statements of accounts shall be audited by the Audit Office which shall, for that purpose, have the same powers as it has under the Public Finance Act 1977 in respect of money and stores of a local authority and persons dealing therewith. The Commission shall submit the statements of account for audit by the Audit Office and shall send a copy of the statements of account and the annual report to the Minister as soon as practicable after the statements of account have been audited by the Audit Office. A copy of the Commission's report and statements of account and the Audit Office's report in each year shall be laid before Parliament as soon as practicable after their receipt by the Minister."

Section 41 Public Finance Act:
"Annual financial statements of Crown agencies -
(1) Notwithstanding any other Act, every Crown agency shall, as soon as practicable after the end of each financial year, prepare financial statements for the Crown agency for that financial year.
(2) The annual financial statements shall be prepared in accordance with generally accepted accounting practice and shall include.
(a) A statement of the financial position of the Crown agency at its balance date:
(b) An operating statement reflecting the revenue and expenses of the Crown agency for that year.
(c) A statement of cash flows reflecting cash flows of the Crown agency for that year:
(d) A statement of objectives specifying the outputs to be produced by the Crown agency and the financial performance to be achieved by the Crown agency during the year as established at the beginning of the year:
(e) A statement of service performance reporting the outputs produced by the Crown agency during the year as compared with those outputs established at the beginning of the year and specified in the statement of objectives:
(f) A statement of the commitments of the Crown agency as at the balance date:
(g) A statement of the contingent liabilities of the Crown (b) agency as at the balance date:
(h) A statement of accounting policies:
(i) Such other statements as are necessary to fairly reflect the financial operations of the Crown agency for that year and its financial position at the end of that year:
(j) Comparative actual figures for the previous financial year for paragraphs (a) to (g) and, where appropnate, paragraph (i) of this subsection.
(3) The Crown agency shall forward the annual financial statements to the Audit Office or, where the Audit Office is not the auditor, any other auditor appointed pursuant to any Act no later than 90 days after the end of the financial year."
7.11.1 In our view the Annual Financial Statements fail to meet these requirements in a number of respects of which the following are examples:

- The full proceeds of the sale of fixed assets are credited to reserves. This is a requirement of section $62(2)$ of the Fire Service Act but is not in accordance with general accepted accounting principles.
- Up to and including the 1991 Annual Accounts, no depreciation was charged in the operating statement in respect of the utilisation of fixed assets. Although an annual charge has been made in the past two financial years, no attempt has yet been made to record the accumulated depreciation by reference to the expired portion of the economic life of each asset as at balance date and to adjust the total disclosed capital of the Commission as a consequence.
- In terms of sections 55 and 56 of the Fire Service Act (providing for the payment of a gratuity on the death or retirement of members of both the Fire Service and the Voluntary Fire Service with more than ten years service) the liability as currently revealed in the Gratuities Fund Reserve at $\$ 0.8$ million is grossly understated (see section 7.8.2).

Of more importance however, is the fact that the Annual Financial Statements are extremely complicated and difficult to understand. Commendable efforts have been made in the 1993 Annual Accounts to bring them more into conformity with generally accepted accounting principles, but they still defy a clear understanding to all but the most sophisticated reader with a working knowledge of how the Commission is funded.

The fundamental problem relates to the provisions of the Act which specify or imply that the accounting records must reflect the methodology adopted in calculating the annual sum of money to be appropriated by Parliament and from levies to meet approved operating and capital expenditure.

This requirement to mix the presentation of Annual Financial Statements with Government funding calculations and the inflexibility of accounting requirements as set out in the Act has resutted in a proliferation of movements between and within a variety of reserve accounts and a preoccupation with the calculation and processing of the required

### 7.11.3 We therefore recommend that

- the number of reserve accounts be reduced to the minimum considered necessary in ensuring that the overall capital of the Commission is sufficient for its financial requirements.

In particular the Reserve Fund and the Sinking Fund should be transferred to Capital. The Gratuities Fund Reserve at $\$ 0.8$ million and the Capital Loss of Medical (Residual) Fund at $\$ 1.3$ million serve little if any purpose. (As already indicated the Gratuities Fund Reserve is grossly inadequate for the purpose intended.)

If it is considered desirable to retain the Rural Firefighting Reserve it should be established at the total required to meet future contingencies and the cost each year of maintaining that level should be charged to the operating statement.

* the methodology and calculations supporting the determination in each year of the money appropriated by Parliament and the proceeds of levies to meet the approved expenditure, both capital and operating, should be a separate exercise and should not effect the manner in which the Annual Financial Statements are presented.

It would, however, be quite appropriate (and in fact should be encouraged) to explain and outline the method and/or calculations of approved expenditure, and its funding, in a separate statement attached to the accounts.
loans in excess of requirements should be repaid as soon as practicable.
the Fire Service Act should be amended so as to enable the above recommendations to be implemented.

Our recommendations above will significantly enhance the value of the Annual Financial Statements as they will be greatly simplified and much more easily understood. Furthermore, they would introduce a much greater degree of flexibility into the management of the financial affairs of the Commission in accordance with the responsibility placed upon it under legislation.

We firmly believe that the accounting and presentation requirements of the Act and the procedures required to be followed in meeting those requirements have impeded the Commission in carrying out its full responsibilities. In providing it with the increased autonomy and flexibility suggested, however, we fully appreciate the importance of ensuring that the
accountability of the Commission together with the monitoring procedures put in place, should be sufficient to satisfy the Minister that the funds entrusted to the Commission are applied effectively and efficiently in meeting the objectives and business plans of the Fire Service. Among the essential requirements of accountability are the following:

- A reasonable degree of accounting and business knowledge and experience within the membership of the Commission.
- A high level of accounting and financial expertise and experience at senior management level.
- Regular reporting (eg three monthly) to the Minister on the financial and operating affairs of the Commission including up-to-date statements of results, cash flows and financial position with comparisons against budgets and business plans.


8. HUMAN RESOURCE MANAGEMENT


## 8. HUMAN RESOURCE MANAGEMENT

## 8.1 <br> OUTCOMES OF EFFECTIVE HUMAN RESOURCE MANAGEMENT

8.1.1 The human resource management systems of any organisation represent an essential strategic resource. They allow an organisation to develop its human assets to best meet its present and future operational needs and business objectives. To be effective, human resource planning must be:

* based on clearly articulated objectives which support the organisation's mission;
* supported by a full human resources inventory containing personal data and details regarding the skills, employment history, performance information, promotion potential and career preferences of each individual;
- capable of supporting quantitative and qualitative forecasts of future job types and performance levels required to enable the organisation to achieve its plans; and
- capable of integrating these systems within a common strategy covering job definition, recruitment, training and development, work systems, performance evaluation, reward systems and the flow of human resources in, through and out of the organisation.

Human resource management can be considered effective if it produces the following organisational outcomes:

Commitment - a well-motivated, loyal and high performing workforce.
Competence - attracting, developing and retaining people with the skills and knowledge needed by the organisation.

- Cost Effectiveness - a remuneration system in which the rewards offered are in keeping with the value of the goods and services produced.
\$ Congruence - a consistency between management style, organisational culture, and work systems which establishes a high degree of correspondence between the organisational goals of the management and the individual goals of employees.


### 8.2 INADEQUATE SYSTEMS \& PROCESSES

Little progress has yet been made in introducing comprehensive human resource systems and processes to the New Zealand Fire Service. For instance:

* The IRT found no evidence of any adequate strategic planning approach to management development, human resource management, skills inventory deployment, recruitment and reward systems or performance appraisal.
- Personnel and training functions are separately managed, policies are insufficiently integrated and systems for personnel data collection, performance evaluation, training and career development are inadequate.

The annual negotiation of the employee's agreement has effectively become a substitute for the human resource management process. As a consequence, the agreement has become a catalogue of remuneration entitlements, recommended operational processes, and diverse conditions of service which seriously constrain management discretion and workplace flexibility.

- Senior management and command frequently appear to lack sufficient commitment to fulfilling their responsibilities as employers. This is reflected in the tendency towards "soft" industrial negotiations; and a disinclination to engage in effective staff periormance evaluation processes.
- Fundamental human resource policy decisions are made on a wholly pragmatic basis with little regard for their strategic or operational consequences. The recent decision to suspend recruitment as a response to funding shortfalls, for instance, has
intensified the problem of aging within the service.
- resulted in higher average pay and contingent liabilities.
arguably reduced standards of operational performance.
Lack of adequate career guidance and effective job definition at senior management levels have produced a self-defeating cycle of professional decline. The IRT observed a recurrent pattem of experience in which highly motivated officers sought to improve their promotional prospects through private extemal study only to be appointed to middle and senior management positions which lacked significant job content and offered minimal job satisfaction.
- Conversely, cases were also observed in which capable officers refused promotion preferring to remain in relatively poorly remunerated positions which offered substantive professional challenges.


## 8.3

8.3.1
8.3 .2

### 8.3.3

Work Flows
Strategies for managing work flows in, through and out of the Fire Service are also contradictory and dysfunctional. The present system guarantees a career service characterised by entry at the operational level, life-long employment and retirement at the age of 65 years (subject to tests of physical competence). The IRT recognises the benefits of retaining job security and continuity for active operational firefighters in view of -

- the need for building a skilled, disciplined and committed force capable of effective interdependent work;
* the cost benefits of holding down turnover rates (assuming a level of competence performance is achieved and maintained by new recruits);
* the contribution of continuity to the development of a strong organisational culture based on the ethic of community service.

Aging of Firefighters

However, the IRT sees no merit in maintaining this career service beyond the operational level. We believe instead that appropriate human resource development programmes need to be introduced which

- either develop transferable skills and open up other career altematives for firefighters once their period of active service is over (a maximum 15 year contract is suggested);
- or select individuals with proven ability for training in fire service management, policy or operational research with a view to their recruitment, on a competitive basis, to contract positions elsewhere within the reformed Fire Service structures.

This suggests the need for differing employment contract conditions designed for management, policy and research functions rather than their being replicated from the operational context. Unless new strategies of this type are adopted, the IRT envisages a continuation of the present dysfunctional lifetime work flow policies with their unfortunate attendant consequences such as:

- the elaboration of 'non-jobs' within management and command structures as a means of absorbing firefighters who are no longer operationally competent;
- the human and financial waste of perpetuating this top heavy structure;
- the consolidation within the service of attitudes of cynicism and contempt regarding the quality and effectiveness of senior management and command.

The age profile of operational firefighters is shown in Figure 8.1. The average age at present is 40 years. The current practice of little or no recruitment, combined with a lack of employment opportunities elsewhere in the economy has created a situation where there is minimal tumover of firefighters and consequently the average age of the firefighters is increasing.


Firefighters need to be physically fit, strong, and energetic to perform well. Although we have not detected a marked increase in "medical boarding" there is no proof yet that the relatively old age of the fire force is having a significant effect on its operational effectiveness. However, the situation is a matter of concem for all ranks and potentially risks and if prolonged it could have a debilitating effect on the Service with increased incidence of fireground accidents.

The Fire Service was aware of the problems posed by the aging of operational firefighters. It sought the same exemption from provisions of the Human Rights Act against employment discrimination on the grounds of age that were granted to the Defence forces and Police. It was not successful in this.

The human resource strategy prepared by the Independent Review Team would help rejuvenate the fire force by increasing recruitment and speeding up retirement.

### 8.3.4 Reward Systems

Systems of remuneration and reward function as a means by which management reinforces desired behaviour. Again, the IRT believes that reward systems within the Fire Service are dysfunctional. Too frequently they are perceived within the Fire Service itself to reward under-achievement and lack of productivity rather than effectiveness and efficiency. For example:

- Salary scales within management and command provide progressively greater remuneration for positions whose executive or operational effectiveness seems to decline at each successive level of the hierarchy.
- Shift, watch and roster systems are constructed in a way that allows around a third of the workforce to engage in substantive secondary employment. This diminishes the focus and commitment of Fire Service staff.

Work Systems
The IRT also perceives contradictions between the work systems appropriate to operational work, in which set procedures, obedience to rules and tight discipline have relevance, and the management culture required for the running of an effective business. Among the values appropriate to an effective management culture are the encouragement of participation, individual performance evaluation, a concem for leaming and growth, the maximisation of intrinsic benefits, the minimisation of status differences, a degree of individual competition and a sharp customer focus. These are not values which arise naturally from the disciplined work habits of operational firefighting. The Fire Service needs to build an organisation in which operational and management work systems and values are clearly distinguished. Imposing systems appropriate to operational work on management functions will not achieve optimum effectiveness within the current business environment.

## 8.4 THE PRESENT SHIFT SYSTEM

8.4.1 Costly and Cumbersome

The extent to which the current shift system is dysfunctional in terms of the broader purposes of human resource policy has already been noted. It is also costly in its staffing requirements, exceptionally unproductive and cumbersome in its remuneration system.

4 The Fire Service currently uses a four-watch system so four firefighters are required to support every post. This means a staffing ratio of 4 but, allowing for predictable absences, the actual staffing ratio is closer to 4.6 .

- Under this system firefighters work a standard normal time week of 42 hours (ie $7 / 8$ of the standard 48 hours worked over an eight day cycle).
* Shifts are arranged so that firefighters work two days on, two nights on and then have four days off. This allows firefighters the option of taking up secondary employment during their down time (about $30 \%$ of the present workforce have substantive secondary jobs).
- Firefighters on the night shift are on standby for emergencies but spend the bulk of their time asleep. They receive the same hourly rate for these standby duties as for full operational duties on day shift.
- Overtime and callbacks also increase the average weekly workload and remuneration for firefighters. On average, operational firefighters work approximately 5 hours per week in addition to the basic of 42 - an average of 47 hours. However, as -
the current freeze on recruitment has resulted in a situation in which the Fire Service is under establishment by 50 ; and
- those firefighters with substantive secondary employment are less able to take on overtime and callbacks,
it therefore seems likely that these additional working hours are concentrated on, say, $70 \%$ of the workforce, thereby boosting their total weekly hours and remuneration accordingly.


### 8.4.2

## Unproductive

The efficacy of these arrangements is being questioned within the Fire Service itself. The IRT was told by a senior operational officer that:
... the existing full-time system is such that the average working week for operational staff consists of more time on standby than on routine duties ... There is no differential between standby and routine hours ... Staff are paid for a 42 hour week, an average of 17.25 hours of which are worked. This is reduced to about 10 productive hours because of duties such as making beds, cleaning and ... There is a need for a greater numter of routine
hours to be worked by staff as the principal method of improving productivity. The justification for retaining the existing system under which the largest proportion of duty hours are on standby cannot be sustained."

These are views with which the IRT concurs.

## 8.4 .3

Discourages Voluntary Effort
The IRT is also aware of other dysfunctional results produced by the present shift and remuneration systems. These concern the relationship between permanent firefighters and volunteers.

Volunteers join the Fire Service to fight fires. They do so at some personal risk, and their employers, rather than the public, assume the cost of their contribution. However, the present shift system discourages effective voluntary effort. By paying overtime for callbacks the present shift system provides incentives for permanent staff to report for additional duties at times when stations are staffed by volunteers. As a result, in composite brigades, many decisions regarding the deployment of volunteer or permanent firefighters are made not on the basis of maximising effective suppression, but rather to cater for the personal interests of the personnel involved.
*... there have been a lot of local arrangements. Some ... might call back one permanent crew and one volunteer crew. That's to ensure the permanents are kept happy. They have their overtime. And it keeps the volunteers happy because they have a callout."

It was claimed that such factors explain the increasing turnover in volunteers (1,861 resigned between 1 July 1991 and 30 June 1993). Submissions to the IRT stated that permanent firefighters
*... have driven so many people out because they're scared of losing overtime,"

Other submissions claimed that:
-Permanent firefighters refuse to train volunteers, will avoid having volunteers called in, intimidate and do all within their power to demoralise and run down volunteer units so they can claim the units are inefficient and justify closing down ... This intimidation is greatest at brigades which are composite manned."

## Firefighters Paid More Than Counterparts

The IRT has had access to comparative research data prepared by Wheeler Campbell and Hay Management Consultants in late 1993 regarding the level of remuneration currently received by Fire Servicミ personnel. Three conclusions can be drawn from this evidence:

* When base salaries alone are considered, remunzration for firefighters does not appear to be out of step with what is provided for other
emergency services personnel. Wheeler Campbell's survey of basic rates of pay for police, nurses, prison officers and the Fire Service did not reveal substantial anomalies. However, compared with these other emergency services, the Fire Service represented the only case in which employees were paid the full hourly rate for extended standby periods when they could expect to sleep.
- When total remuneration costs are considered, anomalies begin to emerge. The Hay data (Table 8.1) compares total remuneration costs for 22 job types within the Fire Service with public sector and private sector jobs which carry similar levels of accountability. This research clearly demonstrates a large differential between total remuneration received by most operational firefighter ranks and positions of equivalent responsibility in other sectors:

Table 8.1: Relativity to Domestic Benchmarks

|  | Fire Service | Industrial Service | Public Sector |
| :---: | :---: | :---: | :---: |
| Devisional Officer | 53.465 | 45,508 | 44,726 |
| Senior Station Officer | 51,392 | 43,521 | 42,733 |
| Station Officer | 49,503 | 43.521 | 42,733 |
| Sentor Flrefighter | 45,114 | 39,194 | 37,990 |
| Qualified Furefighter | 43,467 | 37.862 | 36,351 |
| Ffrefighter $\quad$, \% | 36.945 | 34.312 | 32,639 |
| Probationary Frefighter | 34,872 | 30,923 | 32,639 |

* Intemational comparisons confirm these anomalies. Hay's research data provided comparisons between the average pay for firefighters in New Zealand, Canada, Australia and the United Kingdom compared with the national official average pay (Table 8.2).

This indicated that the Canadian services had 'a markedly higher relativity to the average services than other participants' and attributed this to a fundamentally different industrial history (which) has resulted in an environment which places far greater value on firefighting as an occupation'. However, comparisons between New Zealand, Australia and the United Kingdom indicated that remuneration within the New Zealand Fire Service compared more than favourably with Australia and the United Kingdom.

Table 8.2 : Relativity to National Official Average Pay $(=100)$

|  | NZ | Australia | UK |
| :---: | :---: | :---: | :---: |
| Chief Fire Cormmander | - | A | - |
| Sentor Fire Commander | 204 | 188 | 174 |
| Fire Cormmander, | 193 | 174 | 162 |
| Assisfant Commander | 189 | . | - |
| Divisional Officer | 179 | - | - |
| Senior Station Officer | 159 | 139 | 138 |
| Station Officer | 152 | 121 | 122 |
| Sentor Fitelighter | 147 | 113 | 105 |
| Quakfied Firefighter | 134 | 103 | 102 |
| Firefighter . | 129 | 97 | 100 |
| Probationary Fireifigter | 110 | 89 | 92 |

### 8.4.5 NZ Firefighters Get More Rewards

This international comparison also demonstrated the following 'key areas of difference' between the New Zealand Fire Service and other fire services:

- the NZFS makes specific provision for overtime payment.

4 the NZFS makes specific provision for meal costs.

- the NZFS has a higher sick leave provision.
- the NZFS has a higher rate of employer pension contribution.

It was also notable from the Hay research that fire services in other countries had considerably fewer ranks at operational level than in New Zealand - six in Canada and eight in the United Kingdom and Australia compared with New Zealand's 11.

### 8.4.6 Causes of Relatively High Remuneration

The IRT therefore believes that four principal explanations can be advanced for the relatively high total remuneration cost provided to Fire Service personnel:

- the extended rank system which provides automatic salary progression within each rank on the basis of service rather than ment;
- automatic progression between firefighter ranks based on experience and qualifications rather than availability of vacant posts.
* the present shift, watch and roster system which resuts in significant levels of overtime being worked;
- the special allowances (including superannuation) built into the industrial agreement.

The IRT has therefore concluded that fundamental change is required in all these areas. In particular we question:
the need to retain the current rank system (see Chapter 4 above).

- whether the current shift system achieves the most productive use of firefighters' time.
- the need for a four-watch system (rather than a three-watch system) with its attendant staffing ratio of 4.6 per MSM post.

4 the merit of maintaining a system based on hourly re:es of pay plus overtime and penal rates rather than moving towards some type of salary system.

## 8.5

8.5.1

- achieve immediate productivity gains:
- provide guaranteed income for firefighters at a level which recognises the importance of the services they provide;
- produce significant economies without diminishing the quality of service:
reduce permanent/volunteer firefighter conflict.
These altematives are:
- a salaried four-watch system with an obligation to do a certain number of extra shifts, callouts (but with overtime for duties above this minimum obligation):
a salaried three-watch system with Relievers with an obligation to do a certain number of extra shifts, callouts (but with overtime for duties above this minimum obligation).

Each is discussed separately below.

## A Salaried Four-Watch System

For the purposes of this analysis it was assumed that firefighters on salary (ie up to and including Divisional Officer level) are obliged to do 12 extra shifts. 6 callouts, and 40 hours overtime a year without additional pay.

We have assumed that the manning ratio is set at a level to cover absences due to extended leave only (ie 4.38 for a four-watch system). Under a salaried system, lower manning ratios than these would result in greater savings to the employer, but we have assumed that the extra shifts obligation will be used only to cover "unexpected" shift losses rather than being built into the basic roster.


On the basis of our analysis, we have concluded that the move to a salaried four-watch system would allow only limited economy and efficiency gains to be achieved.

This scenario would allow a reduction of 48 in establishment to bring staffing levels down to that required to just cover extended leave. There would be a saving of $\$ 2.8$ million in pay costs, ie a reduction of $3.4 \%$. The average work week should increase from 45.6 to 46.6 hours, and total annual eamings per firefighter would fall by around $\$ 400$.

Larger savings would be possible if establishment were reduced further to ensure that on average all firefighters used up their obligation to do extra shifts.

Basic data covering this scenario is displayed in the table below and compared with projections for a three-watch salary system with Relievers.

Table 8.3: Watch Scenarios

|  |  | Four Watch |  | Three Watch with Relievers |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Current | No. | Shift from current | No. | Shift from current |
| Manning Ratio | 4.4964 | 4.3813 | -0.12 | 3.21 | -1.29 |
| Firefighters Establishment | 1875 | 1827 | -48 | 1337 | -538 |
| Relievers Establishment | 0 | 0 | 0 | 201 | +201 |
| Total Establishment | 1875 | 1827 | -48 | 1538 | -337 |
| Rostered Hours per Week | 42 | 42 | 0 | 56 | +14 |
| Average Total Hours per Week | 46 | 47 | +1 | 56 | +10 |
| Basic Pay cost per Firefighter (\$) | 39796 | 39796 | 0 | 45001 | $+5205$ |
| Total Pay Costs per Firefighter (\$) | $\begin{array}{r} 44575 \\ / 45001^{\circ} \end{array}$ | 4182 | -426 | 45001 | 0 |
| Annual Basic Pay of Relievers (\$) | 0 | 0 | 0 | 33625 | $+33625$ |
| Total Pay cost/MSM post inc Relievers (\$) | 200428 | 193575 | -6853 | 160473 | -39954 |
| Pay Cost excl Relievers (\$ M) | 83.58 | 80.72 | -2.86 | 60.16 | $-23.42$ |
| Total Pay costs inc Relievers (\$M) | 83.58 | 80.72 | -2.86 | 66.92 | -16.66 |

$\$ 45,001$ is average with rank mix under 3-watch system. Average under current mix $=\$ 44,575$.

### 8.5.3

## A Salaried Three-Watch System with Relievers

This proposed shift system differs in major respects from the system presently in operation.

* It is based on three watches, thus reducing the ratio of firefighters required to support every post.
- It is based on salaries for firefighters but with provision for overtime should they exceed their quota of additional duties (which has been set at a level of 12 extra shifts, 6 callouts and 40 hours overtime per year).
* In contrast to the present four-watch system, in which firefighters are rostered on for 48 hours over an 8 day cycle, the three-watch system would be based on 48 hours rostered over a 6 day cycle.

Work patterns would therefore be varied as follows in Table 8.4:
Table 8.4: Present and Proposed Work Pattems

|  | Present 4 Watch Systerm | Proposed Saiatied 3 Watch Sysiem |  |
| :---: | :---: | :---: | :---: |
| Days | Hours | Days | Hours |
| 1 | 8.00am-6.00pm | 1 | 8.00 am 26.00 pm |
| 2 - | 8.00am -6.00pm | 2 | 8.00am - 5.00 pm |
| 3 | $6.00 \mathrm{pm}-8.00 \mathrm{am}$ | 3 | 6.00pm-3.00am |
| 4 | 6.00pm-8.00am | 4 | 6.00pm-8.00am |
| 5 | Four days downtime | 5 | Two cays downtime |
| 6 |  | 6 | - |
| 7 |  | 7 | Cycle resumes |
| 8 |  | $0$ |  |
| 3 | Cycle resumes |  |  |

The IRT noted that this pattem of work was common in New Zealand prior to nationalisation and is used extensively now in the United States and Germany (though 24-hour shifts are usually employed there).

Alongside the firefighters on regular shift posts would be a 'relieving' group of junior firefighters who would fill all lost shifts in the firefighter ranks up to and inclusive of Senior Firefighter. Relievers would therefore serve in a variety of situations, commands and roles. These Relievers will be entirely new to the Fire Service when the group is established.

In developing this scenario we have assumed a six-day cycle, but this could be as short as three (if 24 -hour shifts are used) or much longer, as is the case in some of the watch systems in use overseas.

In this scenario the manning ratio (exclusive of Relievers) is 3 for the firefighter ranks and 3.74 for the officer ranks to Divisional Officer as before. This ratio is sufficient to cover all absences. The number of Relievers required is estimated by calculating lost shifts due to extended leave and other causes and determining the number of these that the average Reliever will be able to cover. For the purpose of analysis only, weekly pay rates of these Relievers have been set at the midpoint between the current rates for Probationary Firefighters Step 2, and the top step of the Firefighter rank. Grade 2 Driver adjusted upward to recognise the longer work week. The basic pay for each grade of firefighter (excluding the juniors) has been set at their current average eamings inclusive of overtime.

Average salary of firefighters (other than Relievers) would be $\$ 45,000$. This is equivalent to present average income of $\$ 40,000$ basic $w \equiv g e$ plus average $\$ 5,000$ pay for extra shifts, overtime etc.

We envisage no loss in earnings (basic wage plus pay for overtime, extra shifts etc) by existing firefighters, on average in each rank, as the new system is implemented. The proportion of firefighters (excluding Felievers) in the officer ranks will be slightly higher than at present, so the $\$ \leqslant 5,000$ average
salary under the three-watch system is slightly higher than current average earnings ( $\$ 44,600$ ) across all firefighter ranks.

The three-watch system with Relievers would produce significant economy and efficiency gains:

- Total annual pay costs would be $\$ 67$ million producing a saying of $\$ 16.7$ million or $20 \%$.

4 The establishment of firefighters (including officers) permanently assigned to crews would be 1,337, and there would be an additional 201 Relievers producing a total of 1,538 (an overall reduction of 337 ).

### 8.5.4

## Benefits of a Salaried Three-Watch System with Relievers

The benefits of this altemative shift system for firefighters and management go beyond the economy and efficiency gains outlined above. For example:

* It provides firefighters with a guaranteed income higher than their present base and a guaranteed annual allocation of work.
- It eliminates the need for competitive rivalry between volunteers and permanents based on competition for lucrative overtime.
- It offers the immediate opportunity for the rejuvenation of the service through allowing the retirement of aging personnel without any diminution of standards of cover.
- Through achieving internal savings it avoids other options a cashstraitened Fire Service would need to contemplate such as driving down basic pay rates to a level of greater parity with other emergency services.

Increased productivity will free up capital for reinvestment in other priority areas (training, equipment and facilities).

It allows young firefighters, as Relievers, the advantage of being exposed to different techniques, crews, commanders and fire environments.

* It will result in all firefighters attending more incidents thus allowing them greater fireground experience and developing their operational expertise.
- It is a system which is sufficiently flexible to allow varying approaches to its implementation to be adopted by Area Commanders according to the needs of their Area and the preferences of firefighters. It would allow other rostering options to be tested (24-hour or 8 -hour alternatives) and innovative approaches to be developed to maximise operational efficiency. This variation of approach will, to some degree, allow firefighters to assess employment prospects in different areas and select the system which best meets their personal and professional needs.
- All personnel will have the benefit of working in a purposive. reinvigorated Fire Service.


### 8.5.5 Other Alternatives

The IRT was also made aware of other alternative duty systems based on different assumptions which would achieve significant proouctivity gains and cost savings. These involved such options as:

- Placing permanent staff on 40-hour week duties and covering standby and night duties with retained (part-time) staff (as in Denmark).
- Greater use of volunteers (as in the Netherlands).
- Contracting out particular services (eg fire safety) to allow better use to be made of trained firefighting personnel.
- Moving from a system based on watches to one based on rostering of individuals. This would allow work weeks to be set at say 48 hours, and thus achieve some savings relative to the current system, but less than the three-watch with Reliever approach. There would also be higher administrative costs and a loss of the team coherence that we are informed is a strength of a watch system.

The IRT accepts these suggestions as valid options. However, they are based on traditions and approaches which are contrary to the commitment of the New Zealand Fire Service to the maintenance of fulltime professional urban fire brigades.

For this reason, the IRT has concluded that the best option available to the Fire Service is to institute a salaried three-watch system wath Relievers. It recommends the Fire Service introduce such a system immediately. While the proposed system is consistent with the current commitment to full-time professional brigades, it would nevertheless represent an absolute imperative for fundamental change in the Fire Service.

The IRT has concluded that such change is overdue. Should the introduction of such a system not prove possible the IRT would recommend that the Fire Service consider instead the introduction of an entirely new ミgproach through a move from permanent urban forces to a system invoiving a mix of professional retained and volunteer firefighters based on the Danish or Dutch models.

## 8.6 <br> A NEW APPROACH TO HUMAN RESOURCE MANAGEMENT

### 8.6.1

Once changes to the organisation structure, rank system and shift systems have been achieved, nothing is more fundamental to improving the effectiveness and efficiency of the Fire Service than the introduction of a strategic approach to human resource management. This must involve:

- integrating and improving human resource management systems;
- adopting management practices which empower staff;
- reconsidering the basis on which human resource flow through the service is determined;
- establishing work and reward systems which provide intrinsic and extrinsic benefits in keeping with the value of the services firefighters provide to the community;
- transforming organisational culture and management style.


## Human Resource Management Systems

Human resource management systems for the new Fire Service must include:

* A comprehensive human resource inventory containing all the information required to enable managers to anticipate training needs, plan career development strategies and guide work flow patterns for all personnel.
- Revised job documentation which clearly relates goals, objectives and accountabilities for all positions to the mission and strategies of the annual plan.

A system of annual negotiated performance agreements for all staff which specify particular responsibilities and targets within the generic goals and objectives defined in the job descriptions.

A systematic six-monthly process of performance reviews in which progress towards performance agreement targets is assessed and discussed openly and frankly and support and coaching is provided to assist individual achievement.

- Provision for improved top-down and bottom-up communication through
- regular (weekly) work group meetings to identify issues of staff concerm;
- regular meetings at each level of the flattened management structure to provide top-down information regarding organisation developments;
- quarterly forums which seek to engage management and staff in the discussion of issues of common concern;
- meetings, at least quarterly, with union representatives to allow current issues to be aired or future developments to be identified;
- a system of internal publications that provides a permanent record of the business and outcomes of these meetings.


### 8.6.2 Staff Empowerment

At the initiative of the Chief Executive, 861 focus groups involving over 7,000 participants have recently been established to tap staff views regarding management, policy and operational matters. Total Quality Management philosophies have been influential in shaping the nature of the interaction which has been promoled. It has apparently been the largest TQM exercise undertaken in New Zealand.

Leaving aside the advantages and disadvantages of TQM as a management philosophy and the value of the findings of this exercise, this consultation process has been significant in the sense that it represents a decisive break from the top-down management practices of the past. If the full value of this exercise is to be realised, it is vital that it should constitute the beginning of a planned process of staff empowerment rather than a one-off exercise. The IRT believes that substantial benefits will accrue if the restructured Fire Service is based on management processes which:

- are open and consultative and reinforce the status and acknowledge the expertise of the entire workforce;
- reflect operational realities by recognising that initiative and discretionary decision-making while on active duty contribute at least as much to a successful result as does adherence to standard operating procedures;
encourage innovation and develop greater customer consciousness.


### 8.6.3 Human Resource Flow

Three linked systems are essential if human resource flow in, through and out of the organisation is to be managed effectively:

- a recruitment system which delivers individuals with the skills or potential to contribute to the organisation's objeaives.
- a performance evaluation system (see Section 8.6.1) which identifies ongoing training and development needs.

4 a training programme which provides, from intemal and extemal sources, the opportunities for individual growth, skills acquisition and career development,

On the basis of evidence provided to the IRT, new systems in each of these areas need to be designed from the ground up if effezive results are to be achieved. These systems will need to embrace:

- Competitive entry to provide the best available range of candidates for operational, management, policy and research roles
- Training programmes which do not just impart operational skills, but develop transferable skills for personnel who leave the force at the conclusion of their active firefighting duties and offer selected personnel comprehensive training for career advancement to nonoperational roles within the Service.
* A performance evaluation system which is capable of identifying potential, rewarding achievement and promoting individual development.
8.6.4 Allied to these systems, new industrial agreements must be negotiated which allow for:
* the passage of former operational firefighters from the Service at the conclusion of their fixed term contract (say five years $\times 3$ );
- adequate redundancy packages to be negotiated for current surplus staff;
- Superannuation systems geared to the more flexible workforce required to provide efficient and effective fire services.

Responsibility for negotiating such agreements under the regional system proposed would be the responsibility of each Regional Chief Executive, as employer. Separate agreements would therefore be required for each Regional Fire Enterprise rather than retaining the national coverage which currently applies.

IRT survey data has established that a significant degree of consensus exists regarding the need for the changes outlined above. Responses from the command structure survey recommended that future policies should, wherever possible:
offer comprehensive career path and training packages for all officers;
introduce a more effective training facility for volunteers;

- roster permanent training officers to attend each brigade at least monthly;
- retire older members of senior rank less likely to accept and introduce change;
* develop an effective programme for the recruitment and development of talent followed by positive constructive programmes of career development;
* provide polytechnic or university training for young officers showing promise as leaders;
* increase numbers of civilian staff:
- reduce numbers of Executive Officers who are surplus to requirements.


### 8.6.6 Work Systems

Survey data collected by the IRT again left little doubt about the type of work systems preferred by Fire Service personnel. There appears to be a widespread desire to move away from the traditional militaristic/public service paradigm in which:

- employees perform jobs which are narrowly defined in content;
- pay is linked to job types not individual performance:
- close supervision is maintained;
- few opportunities are provided for personal growth and development;
- obedience to the hierarchy is a central organisation value;
- employees have little chance to provide input regarding policies or procedures.

The work systems preferred by a clear majority of those surveyed were those that would:

* decentralise the decision-making process.
* flatten the management structure.
* devolve power, authonity, accountability and responsibility to lowest possible level.
- recognise that well qualified people who may not wear a uniform can have a very important part to play in an otherwise operational occupation.
remove systems that: interfere with responsibility; oull enthusiasm; eliminate innovation; and frustrate achievement.
dispense with unnecessary repetitive paper wars.
- achieve communication throughout all ranks to ensure that all members know and appreciate what is happening.
- delegate authority to manage; push accountability and responsibility down the hierarchy.
- relax rigid centralism and promote more local variety and experimentation.
* remove the links in the chain of command that are unable to provide solutions or make decisions.
* introduce up-to-date management facilities, inclucing EDP systems.
- replace existing employment contracts with properly structured documents defining key tasks and objectives then give the people concemed sufficient authority to carry out their work.
- introduce more consultative management.
- remove cumbersome administrative requirements designed to justify and support activities outside the command structure's operational function.

The Fire Service faces a major challenge in developing work systems which are consistent with these criteria.

## 8.6 .7

## Reward Systems

The introduction of the salaried three-watch system outlined above would change the basis by which operational firefighters are rewarded. The IRT is aware that among the consequences of moving to such a system would be:

* the need to reduce substantially the numbers of oferational firefighters and officers currently retained by the Service.
* the establishment of a shift system which would virtually eliminate the opportunity for substantive secondary employment.

The proposals outlined in Chapter 4 regarding the dissolution of the command structure above the level of Area Commander and the contraction of the rank system would also have the effect of displacing existing personnel. While the IRT appreciates the disruptive impact of these recommendations, it nevertheless believes that:

- the Fire Service has the financial resources to enable equitable severance arrangements to be negotiated with affered staff.
the major realignments required would enable older staff to be retired, new recruitment to be instituted, the problem of fire force aging to be addressed, and the total salary cost to be reduced.
remaining operational and management staff would continue to be adequately recompensed and would benefit from a more positive and productive working environment.

In view of these cost, effectiveness and efficiency benefis the IRT therefore recommends that immediate steps be taken to

* institute the proposed three-watch salaried shift syst=m with Relievers.

4 amend the reward system accordingly.

### 8.7 A NEW ORGANISATIONAL CULTURE

8.7.1 The new approach to human resource management recommended by the IRT is antithetical to the military traditions which inform the current structures. rank system and organisational culture within the Fire Service. Characteristics of this culture include:

4 the predominance of a centralised, authoritanian, hierarchical command and control structure;

- an emphasis on discipline, obedience and conformity:
- a pronounced task orientation and operational focus:
* the standardisation of methods, procedures, and equipment;

4 excessive division of responsibilities:

* the high status ascribed to the role and function of the uniformed "front line" firefighter compared with non-uniformed support, promotional or management functions;
* a preoccupation with inputs - the technical capability of vehicles, hardware and equipment, and their manning requirements - rather than quality and output considerations such as fitness of purpose, customer satisfaction, efficiency and effectiveness.
8.7.2 Many of these cultural values are consistent with the traditional public sector environment within which the Fire Service has developed. Also based on formal militaristic organisational structures, the New Zealand public service system, depended traditionally on such factors as:

4 centralisation of authority

- clear, hierarchical reporting lines
- division and separation of functions

4 explicit organisational rules
a focus on input specification rather than the achievement of outputs. and
a career service.

## 8.7 .3

As noted elsewhere, reform of the New Zealand public sector over the past decade, has displaced this traditional organisational paradigm. Emphasis is instead now placed on such values as:

- output and service orientation
- effectiveness and efficiency
- performance and accountability
- devolved management initiative, and
- workforce flexibility.

To a large extent, the prevailing organisational culture of the New Zealand Fire Service is inconsistent with contemporary management practice.
8.7.4 More importantly, this organisational culture appears to lend support to management practices which are dysfunctional. In particular:

4 it endorses a rank system which contributes to an overtong chain of command, excessive division of responsibilities and an overelaborated series of management layers;

* it exacerbates differences between uniformed line and non-uniformed staff functions;
* it privileges operational divisions over other intemal clients such as fire prevention;
- it elevates service over merit as a basis for promotion thus encouraging the retention of less effective people and reducing the level of management competence:

4. it creates conflicts between permanent operational staff - the guardians of the organisational culfure - and volunteers who are viewed as second class citizens.

While structural and industrial reforms proposed as a result of this review will go some way towards addressing these problems, success in implementing these changes will depend on modifying the organisational culture which supports the status quo.

This will not be easy to achieve. The Fire Service functions in a static business environment, with established traditions underpinned by a career service. Pattems of thinking and behaviour have become deeply entrenched. To a large extent they control the thinking of the organisation, dictating how things are done, the form of systems and organisation, the direction of business objectives and operating standards. To achieve progress, openness to change must be fostered actively by senior management.

The determination by senior management to provide fundamental change could be most readily demonstrated by the immediate 'demilitarisation' of the organisation. Without sacrificing the discipline required for effective firefighting, this could be achieved through such measures as:

- restricting uniforms to active firefighters;
- replacing the existing uniform, which fails to identify or distinguish the Fire Service, with a newly designed, modem uniform which reflects the operational requirements of firefighters and expresses the distinctive character of the Service.
* redesignating restructured positions in the hierarchy using management rather than military terminology;
- developing internal information programmes to highlight the value and contribution of non-operational divisions.

Such moves would set the scene for the inevitable structural, operational and industrial changes which will follow as a consequence of this review.

### 8.8 A NEW DEAL FOR VOLUNTEERS

8.8.1 The changes to human resource management outlined in this chapter should also contribute to ensuring a positive new deal for volunteers. For example.

- the 'demilitarisation' of the organisational culture of the Fire Service should produce a climate in which voluntary contribution is valued rather than denigrated.
- the introduction of a salary based system should reduce tensions between permanent and volunteer personnel caused by competition for lucrative callbacks. As one submission to the IRT stated:
"... with the composite brigades the only way we'll get around the problem is to have the pemmanent staff on a salary and built into that salary would be a certain amount of callback time."

The three-watch system recommended by the IRT is based on this principle.

- the refocussing of training programmes to address the strategic needs of the Fire Service should result in a greater emphasis being given to the training needs of volunteers. This should result in the reduction in differential skill levels between volunteer and permanent firefighters.
8.8.2 Other aspects of the changes recommended by the IRT should also contribute to improving the lot of volunteers:
* the new rank system is intended to apply to both permanent and volunteer brigades, thus recognising equivalent professional authority irrespective of employment status.
- the redefinition of job responsibilities within the command structure, particularly at Area level should clarify command roles and result in a situation in which those in operational command of volunteer brigades are given the scope to exercise their authority without undue interference from under-employed senior officers.
- a revamped New Zealand Fire Commission, auing as a policy and service purchase agency for both rural and urban fire services, will be obliged to confront currently neglected issues such as:
- the relative cost and effectiveness of the different types of fire services currently operating;
- the different training needs of volunteer and permanent firefighters and the extent to which these are being adequately catered for:
- the various equipment, facilities and resource needs of these different brigades and the extent to which funding is currently assigned equitably and effectively.
- by adopting a strategy of compulsory competitive tendering for all services, the Commission would encourage volunteer brigades to tender for services currently run by the New Zealand Fire Service; this would allow disputes and tensions between permanent and volunteer brigades or within composite brigades to be resolved as a consequence of the Commission's service purchase decisions.
As a result of these processes, the IRT is convinced that the new structure will better serve the needs of volunteer firefighters and that they will in future be accorded the equipment, resources, training and status commensurate with their importance to the effective provision of fire services in New Zealand.

The IRT believes that this new deal should encourage the continued recruitment of new volunteers into the Service. To provide incentives for employers to release motivated employees for voluntary firefighting duties, the IRT also suggests that the restructured Fire Commission should consider two further possibilities:

- providing volunteers with compensation for pay loss in circumstances in which their employers are unable to bear their employment costs while they are on active duty;
- offering employers who support a substantial voluntary commitment from their staffa discount on their Fire Service levy.

Such moves would provide tangible recognition of the immense value of voluntary effor to the maintenance of public safety through the Fire Service.

### 8.9 RECOMMENDATIONS

8.9.1 Human Resource Strategy

In light of the debilitating effect on current Fire Service activities of high operating costs, lack of productivity, and an aging workforce, the IRT recommends:

- That the Fire Service
- takes immediate steps to develop a human resource management strategy which will achieve efficiency and effectiveness gains while making provision for the continuing revitalisation of the Service.
* That this human resource strategy be based on the elements outline in paragraphs 8.9.2-8.9.8 below.


### 8.9.2 Shift System

That the management of the New Zealand Fire Service take immediate steps to institute a salaried three-watch system with Relievers as the basis for the operational firefighters with the objective of increasing productivity and rejuvenating the Fire Service.
8.9.3 Human Resource System

That high priority be assigned to the development of new human resource management systems including:

- A comprehensive human resource inventory containing all the information required to enable managers to anticipate training needs, plan career development strategies and guide work flow patterns for all personnel.

Revised job documentation which clearly relates goals, objectives and accountabilities for all positions to the mission and strategies of the annual plan.

A system of annual negotiated performance agreements for all staff which specify particular responsibilities and targets within the generic goals and objectives defined in the job descriptions.

- A systematic six-monthly process of performance reviews in which progress towards performance agreement targets is assessed and discussed openly and frankly and support and coaching is provided to assist individual achievement.
- Provision for improved top-down and bottom-up communication between management, command and the work force.
8.9.4
8.9.5
8.9.6

Human Resource Management Processes
That the restructured Fire Service adopt management processes which:

* are open and consultative and reinforce the status and acknowledge the expertise of the entire workforce:
* reflect operational realities by recognising that initiative and discretionary decision-making while on active duty contribute at least as much to a successful result as does adherence to standard operating procedures;
* encourage innovation and develop greater customer consciousness.


## Industrial Relations

That the restructured Fire Service negotiate a new industrial relations regime which incorporates the following elements:

4 a maximum 15 year ( $3 \times 5$ year) employment contract for operational firefighters.

- individual contracts rather than collective agreements for all management staff.
adequate redundancy packages for current surplus staff.
- Superannuation systems geared to the more flexible workforce required to provide efficient and effective fire services.


## Recruitment and Training

That immediate steps be taken to introduce strategic human resource management principles to recruitment and training arrangements in the Fire Service in order to achieve:
a recruitment system based on competitive entry to provide the best available range of candidates for operational, management, policy and research roles.

- training programmes which provide from internal and external sources the opportunities for individual growth, skills acquisition and career development for management and volunteers as well as operational firefighters.
* training programmes which develop transferable skills for personnel who leave the force at the conclusion of their active firefighting duties and offer selected personnel comprehensive training for career advancement to non-operational roles within the Service.


### 8.9.7 Organisational Culture

That immediate steps be taken to 'demilitarise' the organisational culture of the Fire Service through:

- restricting uniforms to active firefighters.
* replacing the existing uniform, which fails to identify or distinguish the Fire Service, with a newly designed, modern uniform which reflects the operational requirements of firefighters and expresses the distinctive character of the Service.
* redesigning restructured positions in the hierarchy using management rather than military terminology.
* developing internal information programmes to highlight the value and contribution of non-operational divisions and volunteers.


### 8.9.8 Compensation for Volunteers

That the restructured Fire Commission consider the possibility of

* providing volunteers with compensation for pay loss in circumstances in which their employers are unable to bear their employment costs while they are on active duty:
- offering employers who support a substantial voluntary commitment from their staff a discount on their Fire Service levy.
8.9.9 Need for Immediate Action

That the New Zealand Fire Commission instruct the Chief Executive to give the highest priority to these reforms during the period 1993-95.

## Regional Chief Executives

That in appointing Chief Executives for the proposed Regional Fire Enterprises candidates be selected who have the qualifications and skills required to continue the implementation of such strategies within these new Crown entities.

## 9. <br> IMPLEMENTATION



## 9. IMPLEMENTATION

The IRT considers that the nationalised management of the New Zealand Fire Service, established with the Fire Service Act 1975, has been ineffective, notwithstanding the "band-aid" changes made in 1988-89. It has become a bureaucracy imposed on top of disparate fire services and has fallen short of the truly nationwide integrated service envisaged through lack of "buy-in" and commitment from the component brigades and former fire authorities and organisations.

The structure has not been fully adjusted in accordance with current public sector reform principles. Nor has it responded to the need to distinguish the management of policy formulation processes from operational planning and control.

The major need is to create a structure which reflects these reform principles and to apply effective management processes to Fire Service operations.

At the base of all fire services reviewed we have found effective fire suppression, and other emergency management, and adequate if less effective fire prevention and safety promotion (as far as we are able to determine in the time available and the international comparative data studied).

It is the organisation superstructure and management processes that are inhibiting growth in quality performance and restraining productivity improvements in the Fire Service.

## 9.1 <br> RECOMMENDED STRUCTURE \& MANAGEMENT PROCESSES

The Optimum Structure - Regional Fire Enterprises
The IRT recommends the regional structure be adopted (as recommended in Chapter 4) based on the principle of separation of policy formulation and service delivery. Implementation of this structure will allow policy and

### 9.1.1

 service purchase functions to be managed by a reformed and strengthened Fire Commission, while devolving operations to three separate Regional Fire Enterprises providing comparable and competitive sevices to the Fire Commission and other customers.Figure 9.1 depicts the proposed Optimum Structure.

Figure 9.1

## FIRE SERVICES

OPTIMUM STRUCTURE
9.1 .2

The Interim Structure - Regional Business Units
The full implementation of the Regional Fire Enterprises structure depends on new enabling legislation being passed. Given the urgent need for progress, the IRT has devised an interim structure which moves substantially towards the optimum structure, and which can be introduced within the provisions of the existing Fire Service Act (1975).

Figure 9.2 depicts the proposed Interim Structure.


These major changes are as follows:

- Under the interim structure, the Fire Commission would vest policy formulation and service purchase functions in a newly established sub committee comprising existing and coopted members.
- A second committee, also comprising existing and coopted members. would review and audit service delivery performance.
- The Fire Commission would be assisted in these activities by a Policy \& Purchase Bureau which is separate from the Fire Service, headed by a director and staffed with appropriate specialists recruited, where possible, from existing Fire Service staff.
- Service delivery functions would become the responsibility of the Chief Executive of the Fire Service. In order to achieve an effective operational structure, it is recommended that the Chief Executive establish three Regional Business Units from the present Fire Service. They will form the basis for the eventual creation of the Regional Fire Enterprises. The Regional Business Units will provide delivery of outputs and services through ten Area commands as outlined in Chapter 4.

4 The National Headquarter corporate support functions will be able to be slimmed down as the Regional Business Units take up their full management responsibilities

- The IRT believes these changes can occur within a two year time frame.
- To facilitate this process of reform it is recommended that a Regional Fire Enterprises Establishment Unit be set up to provide the necessary support to the Chief Executive.
- It is also recommended that the Fire Commission itself establish a Reform Committee to lead and monitor the restructuring process.

Two Stage Structural Change
The changes from the current to the interim structure and then to the optimum structure are indicated in Figure 9.3.


### 9.2 REFORM ROLE OF THE COMMISSION

### 9.2.1 Commission Control

The key to achieving the reformed Fire Service will be for the Commission itself, with the full cooperation of the Chief Executive and National Commander, to take control of the reform process.

The analysis of community needs, the alignment with govemment policy and the purchase of the necessary outputs and services from any or various providers will become its prime and final function.

It must therefore also ensure that it takes control of the Policy \& Purchase Bureau.

### 9.2.2 Policy \& Purchase Bureau Role

The Bureau would provide policy advice directly to the Commission. It would be headed by a director, appointed by the Commission, who would be responsible to the Commission for:

* verification of outcomes sought;
- specification and prioritisation of outputs to be purchased;
- development of a funding policy;
* development of a purchase system; and
- checking whether the Commission receives value for money for what it purchases.
9.2.3 Powers to Establish Policy \& Purchase Bureau

It is useful here to quote the IRT's legal advice on the rights of the Fire Service Commission under the present Act:
*Under s. 3 there is established a body known as the Fire Service. Under s. 4 there is established a Fire Service Commission. The Chief Executive appointed under the authority of s.17A is specifically appointed as head of the Fire Service. Under s.17C the Chief Executive is made responsible for employing the staff of the Fire Service but s. 18 authorises the Commission to appoint its own staff.

In my view it is clear that there are two distinct bodies, the Commission and the Service which the former is to administer through the Chief Executive.

The Commission may delegate any of its functions to the Chief Executive (s.15) and revoke any such delegation (s.15A). If it has delegated any policy functions to the Chief Executive it should revoke them and appoint its own bureau staff under s.18. As they are appointed by the Commission direct and are not part of the Fire Service the Chief Executive has no power over or responsibility for them."

It is clear, according to this view, that the Policy and Purchase Bureau could be set up and properly staffed immediately within the powers of the Fire Service Act as it stands.

New Committees to Support Multiple Roles
The Commission's control of the NZ Fire Sevvice will be an interim function only, until it is devolved.

The final structure recommended for the reformed Fire Service will clearly separate the purchasing function from the ownership and management of the service delivery function. A reformed Fire Service Commission would undertake the policy analysis and purchase services from regional enterprises controlled by the regional boards of directors appointed by the owners of the Service.

To reach that stage however there is an interim period of change while necessary legislative changes are made.

During that interim period the Fire Service Commission will be required to discharge multiple roles:

- as overall coordinator
* as policy developer and purchasing controller;
- as owner and manager of the NZ Fire Service; and
- as manager of the reform process.

To ensure that the principles of reform are adhered to during this interim period and as a lead into the final solution a structure is recommended which separates the control of the various functions.

In terms of the present legislation the Fire Service Commission may co-opt people to set up "advisory" committees as it requires them.
It is therefore recommended that the Fire Service Commission set up the following committees:

- a Fire Service Purchase Committee;
- Fire Service Management "Board"; and
- a Fire Service Reform Committee.

These would technically be advisory committees in terms of the Fire Service Act who would report to the full Commission for endorsement and formal decision.

## The Fire Service Purchase Committee

This Committee would be responsible for managing:

- policy analysis and advice issues;
- decisions about what services should be purchased;
- collection of levy and other government funding;
- negotiation of purchase agreements; and
- payment for services purchased and delivered.
- The policy analysis function would be carried out in conjunction with the Interest Groups Forum. The Forum will provide an opportunity for direct assessment of the service proposed to be purchased. This process would be only pant of a formal policy analysis process. Ultimate policy responsibility would rest with the Fire Service Commission and the Minister of Internal Affairs.
* The key issue would be to identify the outcomes required by govemment policy and what outputs in particular should be purchased by the Fire Commission to contribute foward those outcomes.
- The collection and management of the levy and govemment appropriations are necessary in order to pay for the services and outputs contracted. As part of the levy control it will be necessary for a Capital Development Pool to be maintained at a modest level to provide for new capital injections into Regional Business Units to provide for expansion of services rather than replacements.
- The purchase negotiation would include a price negotiation in which the Service deliverer would have allowed for all incurred and accrued costs in a normal business manner including depreciation and the like.

> "A likely output purchase arrangemert would pay a certain fee $\$ A$ for Area $X$ to provide a standby service of level Y for a particular month, and a further certain fee $\$ B$ per emergency attendance carried out during the month."

- Payment for services delivered would be on the basis of agreed price. It would expect to be paid on a normal monthly business cycle and subject to the quantity, cost, timeliness, and quality conditions set in the contract being met.

In the interim period of reform most of the negotiation would be with the $N Z$ Fire Service and with the Rural Fire Authorities. This process would continue and be strengthened with the formation of the regional enterprises then providing a greater degree of competition.

Competition and comparison need not stop at that poimt either-
Conceptually, for example, a volunteer brigade which became dissatisfied with the way it was being operated by the NZ Fire Service, could negotiate a separate deal with the Fire Service Commission. Under a contract of adequate lergth of term it would be able to secure (buy or lease) the necessary assets to provide the service.

### 9.2.6

9.2.7

The Fire Service Management Board
This committee is referred to as a board to denote the nature of its role as manager and owners' representative.

Its role would be to govern the NZ Fire Service and its Regional Business Units during the interim period of reform before the establishment of the regional enterprises.

The NZ Fire Service would offer its services to the Policy \& Purchase Bureau on a basis negotiated by the Regional Business Units. As outlined above its pricing would need to cover all costs, including those incurred directly, accrual items such as depreciation, and as well the cost of assets employed. The Regional Business Units should be subject to a monthly charge from their corporate office based on the net assets employed and using an appropriate interest charge which reflects the average cost of funds to the NZ Fire Service and the cost of corporate office. This will place pressure from Regional Business Unit management on the corporate office to control its costs.

On this basis management can be judged on its bottom line success. That success can be improved by better

- negotiation of output contracts;
- control of costs; and
- control of assets employed to minimise the net assets charge.

All of these opportunities for achieving greater efficiency are, in this structure, under the control of Regional Business Unit management.

In so far as capital expenditure is concemed, the depreciation charge included in the charge out price for outputs and services will generate enough cashflow to ensure a replacement programme which maintains the capital base of each Regional Business Unit. Where there is a need to expand the operation of an Regional Business Unit by, for example, installing an extra station in an expanding area this would provide the basis for an application to the owners/management board for an injection of new capital loans. The Policy \& Purchase Bureau would of course have instigated the expansion and be prepared to pay accordingly, thus providing the revenue to pay for the loan.

Management will be employed on a basis of performance measurement. This will include their ability to sell and deliver the Regional Business Unit services as contracted and meet the targeted bottom line result. Their reward structure will be expected to reflect the quality of their performance.

## The Fire Service Reform Committee

This small committee will be appointed to control the reform process. It will require a mix of people with a range of skills and knowledge relevant to the Fire Service and to the reform of govemmental organisations. It could include the present Chief Executive.

The Reform Committee's role will be to ensure the: the reform process is carried through to completion, does not get captured by any faction along
the way, deals with any issues which have not been detailed through this report, and identifies the appropriate owning interest groups for the Regional Business Units.

Its primary role will be to recommend to the Fire Service Commission a programme and timetable for the reform process. Its secondary role is then to monitor the achievement of the agreed targets, and ensure that necessary actions are taken for success.

## 9.2 .8 <br> Fire Service Commission Leadership

The role of the Fire Service Commission is to take the lead, and provide an overall coordinating role. It is the legal entity in charge, responsible to the Minister of Internal Affairs.

Although the committees are regarded as advisory it will be necessary to delegate responsibility and authority to them in order to achieve the separation of the functions required to comply with the reform principles.

The Fire Service Commission would also be responsible for the management of the Capital Development Pool. This would be managed primarily through the NZ Fire Service Management Board. The pool would be maintained at the minimum level necessary to match the growth of the community and any changes made to the levels of cover.

The Fire Service Commission would operate through the three committees during this interim period, agreeing to their plans and monitoring their progress in terms of those plans, and ensuring all necessary actions are taken to achieve success.

The interim structure proposed for the NZ Fire Service is depicted in Figure 9.2 above.

## REFORM ROLE OF THE FIRE SERVICE

## The Chief Executive Role

The Chief Executive is the key position in this interim structure of the New Zealand Fire Service reporting to the Fire Service Commission through the Management Board.

This position is defined to operate in the same way as an equivalent position would operate in a normal divisionalised commercial organisation, but with the additional responsibility for reforming the whole organisation.

The structure reporting to the Chief Executive is divided into two main streams. One operational stream comprises the three Regional Business Units controlled by their relevant General Managers. A second stream provides the support and finance services for the corporate office, the Chief Executive and the Regional Business Units. Supplementary to this is the Regional Fire Enterprises Establishment Unit whose discrete function will be to progress the final reform of the Fire Service into the Regional Fire Enterprises.

The Chief Executive will control the Fire Service primarily through the Regional Business Unit General Managers. This process will follow the conventional management practice of setting plans to achieve the strategic objectives of the New Zealand Fire Service, and then following through and ensuring that agreed targets are met.

An annual programme of strategic planning and budget setting will be entailed, with a follow-up programme of monthly review sessions with each General Manager. The General Managers will of course follow the same procedure with their Area Commanders.

The support and finance streams will provide advice and services to the Chief Executive, assisting in the establishment and maintenance of standards, and with the control of the organisation. They will also provide services to the Regional Business Unit General Managers on a cost recovery basis as required and while the services remain cost competitive some requirements, such as standards of financial reporting, will of necessity be mandatory.

The Regional Fire Enterprises Establishment Unit will be a compact unit providing support to the Fire Service Reform Committee and, under the control of the Chief Executive, managing the process of reform into the devolved and decentralised Regional Fire Enterprises.

It would be expected that as well as the regular review and planning sessions with individual General Managers the Chief Executive would also convene a management committee with all General Managers reporting.

### 9.3.2

## The Regional Business Unit General Manager's Role

The General Managers are the other key positions in this interim structure of the NZ Fire Service. They report to the Chief Executive.

The positions are defined to operate as leaders of the autonomous Regional Units, but with the additional responsibility for helping to lead the change toward Regional Fire Enterprises.

The structure reporting to the General Manager is divided into two main streams. One operational stream under Area Commanders controls their respective operational areas. A second stream provides the Support and Finance services for the Regional Business Unit.

The General Managers will control the Regional Business Units primarily through the Area Commanders. This process will follow the same conventional management practice of setting plans to achieve the strategic objectives for the Fire Service and then following through to ensure that agreed targets are met.

An annual programme of strategic planning and budget setting will be entailed, with a follow up programme of monthly review sessions with each Area Commander.

The accountability will derive from the monthly review of the Regional Business Unit by the Chief Executive. The timetable would be arranged for the reviews to take place, by Area, then by Region.

Both the plans and the reports of the Regional Business Units would provide the basis for the overall Corporate Planning and Reporting of the Fire Service.

The support and finance streams will provide advice and services to each General Manager assisting them to establish and maintain standards, and to control the organisation. They will also provide reports and services to Area Commanders while these services remain cost competitive. Some requirements such as standards of financial reporting will of necessity be provided on a mandatory basis.

It would be expected that as well as the regular review and planning sessions with individual Area Commanders the General Managers would also meet in the form of a management committee with all their Area Commanders and Support Managers.

## 9.3 .3

## The Area Commander's Role

The Area Commander within the Fire Service interim structure will be operationally responsible for actual delivery of outputs and fire services. Up to this level of management a command style of management will operate in order to achieve the discipline and control of the quasi military operations of actual firefighting.

## 9.3 .4 <br> The National Commander's Role

The position of National Commander is provided for in the Fire Service Act. In terms of the Act the Chief Executive can hold that position providing the qualifications identified by the Act as necessary are also held. Where the two positions are not combined, an unsatisfactory hierarchical situation is created. In effect the National Commander becomes a deputy or assistant to the Chief Executive.

In other organisations this type of relationship is seen as an indication of poor delegation ability by managers or as the use of subordinates as a shield. Such positions can have a tendency to confuse and undermine the proper chain of management authority.

In terms of the principles under which the interim structure for the Fire Service has been developed there are no positions for deputies, or one on one management hierarchical positions

However, in the case of the National Commander it is considered there is merit in retaining the role on an interim basis for the following reasons:

- retain the position until the legislation is changed;
- help retain corporate knowledge during a period of change;
- ensure that technical standards are maintained as change occurs; and
- support the Chief Executive during the change period either by providing management back-up while the Chief Executive is engaged with change issues, of by taking over the responsibility for managing some of the change issues (such as managing the pilot project on operational development planning recommended in Chapter 6 of this report).

In these circumstances the National Commander would have a key role in promoting the reform of the Fire Service, at the same time ensuring that technical standards are recognised and maintained to the proper level.

### 9.4 POSITION SPECIFICATIONS

The responsibilities of the leadership positions in the interim management structure are presented below. All appointed positions would be filled on the basis of open entry and wide invitation with the best and most suitable candidate being selected by the manager to whom they would report.
There would be clear employment contracts with mandatory annual performance reviews for all management and command positions. The reviews would evaluate performance against agreed objectives and be the basis for compensation, rewards and incentives.

All personnel appointments would be based on qualifications and performance, and not on length of service or the need to provide jobs for firefighters who are no longer able to perform adequately in a physically demanding operational role.

### 9.4.1 Fire Service Commission Chaiman

Reports to: Minister of Intemal Affairs.
Responsible for:

- Providing leadership of the Fire Service Commission as a whole.
- Ensuring there is coordination of the subordinate Purchase and Management Committes.
- Ensuring that the two subordinate committees maintain the focus necessary to ensure separation is maintained between the Service's purchase function and the service delivery function.
- Leading the Fire Service Commission in its negotiations with the Minister of Intemal Affairs over agreed outcomes to which the Fire Service Commission will contribute.
- Leading the Fire Service Commission in its ownership role of the New Zealand Fire Service to ensure its Management Board and Chief Executive are achieving return on investment and other targets set by the Fire Service Commission as owner/investor.
* Leading the Fire Service Commission in its consultative role with fire and emergency interest groups.

Fire Service Purchase Committee Chairman
Reports to: Fire Service Commission.
Responsible for:
4 Leading the Policy \& Purchase Bureau in its role of identifying outcomes to which the Fire Service Commission should be contributing.

Leading the process of communication, consullation, and research with the Interest Groups Forum.

- Negotiating with the Minister, and other funding representatives, appropriate funding for fire services throughout New Zealand.
- Establishing the policies and processes for purchase of outputs and services which should be purchased to achieve the agreed outcomes.
- Establishing the policies and processes for receiving the outcomes and judging whether they meet the quantity, cost, timeliness, and quality measures which were contracted.
- Establishing the criteria which service providers will have to meet to be considered as suitable contractors for provision of outputs.

Leading the NZ Fire Senvice in its role as primary provider of outputs and services in the field of fire suppression in New Zealand.

- Leading the NZ Fire Service Board in its role of controlling the NZ Fire Service.
- Ensuring that a strategic plan is in place which coordinates with the overall strategic direction of the Fire Service Commission.
- Appointing and removing the Chief Executive.
- Ensuring the Chief Executive is planning and managing the NZ Fire Service in accordance with the strategic direction established by the Board and in terms of his contract and the designated performance measures.

Ensuring the NZ Fire Service is customer focused and organised to produce the services and outputs which its customers require, primarily but not exclusively the Policy \& Purchase Bureau.

- Ensuring the NZ Fire Service maximises the benefit of the resources which it controls and that the desired rate of retum on investment set by the Fire Service Commission is achieved or bettered.

Reports to: Chairman of the Fire Service Commission and works with the Chairman of the Policy \& Purchase Committee.

Responsible for:

- Leadership of Policy \& Purchase Bureau.
- Identification of desired Government and community outcomes to which the levies and other funds made available to the Fire Service Commission should be directed.
* Providing advice to the Fire Service Commission on funding levels and methods which match Govemment policies for economic efficiency.
* Ensuring that levies and funds allocated to the Fire Service Commission are correctly collected, recorded, and accounted for, either directly or by sub-contract.
* Providing central research and library facilities.
- Identification of the outputs that should be purchased to make the most effective and economic contribution to the identified outcomes.
- Negotiation of the purchase of those outputs from the best source, including but not exclusively the Fire Service.
- Monitoring output delivery to ensure contracted conditions of quantity, cost, timeliness, and quality are met.
- Ensuring the outputs and services provided are paid for in terms of the contractual arrangements for quantity cost, timeliness and quality.
- Managing the Bureau effectively, efficiently and economically.

The organisation of the Policy \& Purchase Bureau is depicted in Figure 9.4.

Figure 9.4:
FIRE SERVICE COMMISSION POLICY \& PURCHASE BUREAU


Other
Emergencies
Rural

Policy Analysis

Library

### 9.4.5

## NZ Fire Service Chief Executive

Reports to: Chairman Fire Service Management Board.
Responsible for:

- Implementing the strategy for Regional Fire Enterprises of the New Zealand Fire Service.
- Leading the Regional Fire Enterprises Establishment Unit:
- Achieving the Commission's restructuring goals within the agreed time frame.
- Managing, on an interim basis, the 'business as usual' aspects of the Fire Service including:
- Ensuring the Regional Business Units develop business plans which will achieve the strategic directions.
- Leading, coordinating, and consolidating the Regional Business Units activities.
- Ensuring the business objectives of the Regional Business Units are met and consequently those of the New Zealand Fire Fighting Service.
- Appointing and removing the Regional Business Unit General Managers and the Financial Corporate Services General Managers who report to the Chief Executive,
- Planning and managing the acquisition or divestment of strategic business units/operations.
- Ensuring corporate policies are set which will preserve the assets and values of the corporation.

The Chief Executive's Office is depicted in Figure 9.5.


### 9.4.6 NZ Fire Service General Manager Finance

Reports to: Chief Executive Officer.
Responsible for:

- Establishing corporate finance policies which ensure consistent application of accounting and finance principles.
* Ensuring the timely and accurate production of corporate consolidated financial reports on a monthly basis.
* Monitoring and ensuring that there is quality and adequacy of Regional Business Unit financial reporting.
- Analysing the reports and advising the Chief Executive on the results of the Regional Business Unit activities.
- Ensuring corporate finance and treasury functions are managed within agreed parameters.
- Achieving the agreed rate of return on financial assets under his/her control.

The Head Office Finance Division organisation is depicted in Figure 9.6.

Figure 9.6:


## FIRE SERVICE HEAD OFFICE <br> FINANCE



### 9.4.7 <br> NZ Fire Service Support Services General Manager

Reports to: Chief Executive Officer.
Responsible for:

- Establishing a culture of service to the corporation and the Regional Business Units as the prime raison d'etre of the Corporate Services Division.
* Ensuring the efficient and effective management of the Corporate Service functions under his/her control.
- Managing the process of producing the corporate and business plans.
- Establishing appropriate human resource policies.
- Providing assistance where requested by Regional Business Units on human resource issues.
- Ensuring technical standards are set where needed to achieve any necessary interchangeability or connection of equipment.
- Ensuring communication and MIS standards are set appropriate to the coordination of the corporation.
- Providing centralised purchase contract facility to which Regional Business Units may subscribe when needed.
- Managing the permanent training facilities, while they are owned by the New Zealand Fire Service, to business plans as agreed with the Chief Executive.

Figure 9.7 depicts the organisation of Support Services.


Reports to: Directly to the Chief Executive and NZ Fire Service Commission Chair or Audit Committee Chair.

Responsible for:

- Ensuring that the organisation is complying with corporate finance policies
- Ensuring that New Zealand Fire Service resources are being managed in terms of the Board's policies
- Ensuring management systems and practices are contributing to improvement in organisational efficiency and effectiveness.
* Identifying policies and practices which require change or improvement and recommending modification.
- Ensuring the NZ Fire Service Management Board is made aware of all relevant issues.
- Coordinating an internal audit programme with external audit for optimum efficiency and economy.
9.4.9 NZ Fire Service General Managers - Regional Business Units

Reports to: Chief Executive Officer.
Responsible for:

- Establishing the strategic direction of the Regional Business Unit.

Ensuring the Regional Business Unit business and marketing plan will achieve the strategic directions of the NZ Fire Service.

Ensuring the successful negotiation of the sale of the Regional Business Unit services to the Purchase Bureau or to other customers.

Leading, coordinating, and consolidating the Area activities.

* Ensuring the business objectives of the Areas are met and consequently those of the Regional Business Unit.
- Appointing and removing the Area Managers and the Regional Business Unit Corporate Managers who report to the Regional Business Unit General Manager.
- Establishing policies for recruitment, training and promotion within the Regional Business Unit.
* Participating in and control of any negotiations with unions and agreeing any employment contract terms.
- Planning and managing the acquisition or divestment of Regional Business Unit strategic business activities/operations.
- Planning and managing the acquisition and divestment of the necessary assets and resources, within agreed budgets and business plans, to allow the successful operation of the Division.
- Ensuring Regional Business Unit policies are set which will preserve the assets and values of the Regional Business Unit.

The organisation of a Regional Business Unit is shown in Figure 9.8.

9.4 .10

### 9.4.11

9.4 .12

NZ Fire Service Area Commanders
Reports to: Regional General Manager.

## Responsible for:

* Delivering services in terms of contracts for supply negotiated by the Regional General Manager.
- Achieving levels of retum on resources employed as established with Regional General Managers.
- Employing and training levels and quality of staff adequate to achieve the objectives agreed with Regional Business Unit General Manager.
- Ensuring shift system and manning levels are optimised for best and most economic use of human resources.
- Acting as Regional Commander when a regional emergency arises and when appointed as the most senior Area Commander in the Division.
* Taking operational command in emergency situations where the level escalation requires.

The organisation of an Area office is depicted in Figure 9.9.


## Operational Support Roles

There are certain detailed functions within the Fire Service such as fire safety, maintenance, and the like which the IRT was not able to examine in detail due to the reconnaissance nature of its brief. The method of dealing with those positions and their roles will need to be dealt with by the Commission Reform Committee and the Regional Fire Enterprises Establishment Unit. In the case of fire safety functions these, of course, will be the subject of negotiation by the Policy \& Purchase Bureau as to what type of service is required and how and who will deliver it. Insofar as support functions such as maintenance are concerned it may well be that the new focused management structure will consider alternatives such as contracting out or employing firefighters with multiple disciplines as a more efficient solution.

### 9.5 IMPACTS OF REFORM

### 9.5.1 Employment Cost Comparison

We have estimated the comparative employment levels and pay costs of the current and proposed organisational structures. Details are listed in Tables 9.1 and 9.2 below.

On the best information available, this indicates savings in the order of \$29 million per annum, or $23 \%$. The IRT recognises this would represent a substantial reduction in the Fire Services operating costs (around 17\%), but believes it is achievable if the changes are managed strongly.

Table 9.1: Estimated Shifts in Employment

|  | Present | Interim | Shit <br> PresentInterim | Final | Shift <br> PresentFinal |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Commission | $\begin{array}{lllllll}4 & 4 & 4 & 0 & 7 & 3\end{array}$ |  |  |  |  |
| Interim Appointments - Committees | 0 | 3 | 3 | 0 | 0 |
| Reform Advisory Committee | 0 | 4 | 4 | 0 | 0 |
| Policy and Purchase Bureau | 0 | 27 | 27 | 27 | 27 |
| Commission Total | 4 | 3 | 4 | 4 | O |
| NHQ/Nat. Head Office Non-Unif. \& EOs | 122 | 40 | -82 | 0 | - 122 |
| Reglonal Headquarters Non-Unif. \& EOS | 80 | 51 | -29 | 66 | -12 |
| Areas \& District Non-Uniformed \& EOs | 168 | 90 | -78 | 90 | -78 |
| Operational Firefighters incl. YW | 1,893 | 1.355 | -538 | 1,355 | -538 |
| Relievers | 0 | 201 | 201 | 201 | 201 |
| Control Room | 101 | 62 | -39 | 62 | 1 |
| Fire Service Sub-Total | 2,364 | 1,799 | 565 | 1,774 | 590 |
| Region \& Area Non-Op. Uniformed (BW) | 152 | 152 | 0 | +152 | 0 |
| Fire Service Total | 2,516 | 1.951 | 565 | 1,926 | 590 |
| GRAND TOTAL | 2,520 | 1.989 | 531 | 1,960 | 560 |

Note: "Present" lotal includes 18 positions vacant in July 1993, rot included in Table 2.1
Table 9.2: Estimated Shifts in Salary Costs (\$000)

|  |  |  | Shift <br> Present- <br> Interim |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: |

## 9.5 .2 <br> Benefits

Many tangible and intangible benefits will flow from the reform proposed for the New Zealand Fire Service.

- The NZ Fire Service and the Fire Service Commission will focus more clearly on serving the needs of the community.
- This will demand consideration of how these necessary services may be delivered more efficiently and effectively.
- The Fire Service will provide greater opportunities for its employees:
- by giving them a more responsive work environment;
- by providing better recognition of contribution; and
- by creating an organisation which is accountable for the quality of its service.
- Each part of the Fire Service will be clearly focused on its core business. Confused and conflicting directions and motivations will be rationalised.
- The Fire Service will be more capable of achieving its objectives.
- Advice to Govemment will be sounder and more clearly analysed and contestable.
* There will be effective provision for the articulation of community and interest group opinion.
- A restructured, more efficient Fire Service will re!ease poorly utilised resources for better allocation either within the Service or within the community as a whole.

A higher proportion of permanent employees in the New Zealand Fire Service will be concentrated on operational fire fighting. The operational staff to management/clerical staff ratio increases from 5.4 to 8.9 in the interim and 10.4 in the optimum structure.

There will be total potential annual savings of $\$ 29$ million, once the final structure is in place. This represents a saving of around $17 \%$ of current spending. It includes $\$ 25$ million in pay costs accompanying a net fall in staff of 560 . Most of the savings will be achieved under the interim structure (ie $\$ 27.5$ million), with a staff reduction of 530 .

* Under both structures, the major source of saving is the move to the three watch system. The net reduction of around 340 operational firefighters will mean a reduction in pay costs of $\$ 17.4$ million.
- Under the interim structure, there would be a net reduction of around 200 in National Headquarters staff, staff at regional headquarters. non-uniformed staff in the areas and districts, and control room staff, including an offset of 27 positions created in the Commission's new policy and purchase bureau. This would give a net saving of $\$ 7$ million in pay costs.
- Under the final structure, the net reductions in the above would be 230 positions and $\$ 8$ million in pay costs.
- In addition to the pay cost savings, there will be savings in other personnel costs. The annual savings in superannuation cost, (comprising $80 \%$ of these costs and the only component directly proportional to number of employees) are $\$ 3.4$ million under the interim structure and $\$ 3.6$ million under the final.
- Capital savings will also result from introduction of the proposed new structure, for example reduction in the number of control centres. These have not been estimated but could be significant.
- Further savings will be achieved through implementation of the operational development planning method proposed by the Independent Review Team. This would arise from reductions in both capital and maintenance spending on the stations and equipment.
* There will be improved opportunities for volunteers through a betterintegrated service and by better allocation of equipment to support them.

The new organisation will provide opportunities for further efficiency gains in the overall field of emergency services.

## 9.6

## 9.6 .1

All Parties Working Together
Achieving this change will require absolute commitment from both the Fire Service Commission and the Chief Executive. They will need to inspire similar commitment and enthusiasm both in the changing organisation and amongst the interest groups. Not the least of these interest groups is the Government and Parliament.

Within the organisation a key task will be to relieve the present widespread frustration that results from new ideas favourable to change being stifled by the dead hand of centralised bureaucracy and control.

We believe the change proposed will release a wealth of initiative available within the ranks of the Fire Service.

## 9.6 .2

Into The Future
This chapter has concentrated on the interim structure in its prescription of management positions, roles and relationships.

It has done so because the interim structure is the critical first step along the path to the optimum structure set out in Chapter 4. The interim structure produces many benefits but will still place limitations on freedoms and initiatives at the operational level. It will still enforce national solutions on local problems.

Restructuring along the lines recommended will ultimately create responsive Regional Fire Enterprises geared to provide solutions to regional needs and geared to take advantage of regional cost structures and facilities. It will also simplify the process for forming alliances or entering into collaboration with other local organisations. There are many opportunities for better utilisation of resources and more efficient and effective practices in control, communication, buildings, training and other skills and resources. Flexible devolved management which is focused on results rather than rules will encourage the managers to use their initiative and take advantage of these opportunities.

The separated Policy \& Purchase Bureau, which is achievable under the interim structure, will also create new opportunities for the future. The Crown is now purchasing emergency services of one kind or another through a range of agencies - Regional Health Authorities, Civil Defence, Ministry of Police, Ministry of Transport and the military. The opportunity for sharing knowledge, for better definition of outcomes required, and for better understanding of how the various providers can contribute to the Crown's selected outcomes must lead to a more effective and efficient use of community resources.

The challenge for the Fire Service Commission and the Chief Executive is to modemise the Fire Service in time to take advantage of these opportunities.

## STEPS TO SUCCESSFUL REFORM

Implementation of the reformed management structure proposed by the Independent Review Team can be achieved in fourteen steps. The IRT recommends:

1. The Fire Service Commission and the Chief Executive of the Fire Service, adopts and implements the recommendations of this report.
2. The Fire Service Commission recommends to the Minister of Internal Affairs that establishment of the Regional Fire Enterprise structure be agreed to by the Government as the ultimate objective of New Zealand Fire Service reform and seeks his support in achieving the objective.
3. The Fire Service Commission and the Chief Executive commit themselves to early establishment of the recommended interim structure, in order to quickly achieve the potential benefits of increased policy and management effectiveness.
4. This report is presented to an informal session of the proposed external Interest groups Forum to gain the widest possible support for the proposed changes.
5. A programme to present and explain the reforms proposed in this report to staff is undertaken urgently.
6. The Commission establishes the three advisory committees (Reform, Purchase and Management), appoints their chairs and the members.
7. Each of the proposed Commission committees establishes a plan of action with objectives and key milestones identified.
8. The Commission makes an appointment under section 18 of the Fire Service Act to the position of Director, Policy \& Purchase Bureau who in turn organises the establishment of the Bureau.
9. The Fire Service Commission revokes any of its policy functions currently delegated to the Chief Executive of the Fire Service, and vests them instead in the Director of the Policy \& Purchase Bureau.
10. The Chief Executive of the New Zealand Fire Service, the National Commander, and the General Managers proposed in the interim structure of the Fire Service be appointed on contracts of discrete terms to match the period of the interim organisation.
11. All other positions continue while the reform process and the appropriate positions are identified.
12. As the new organisations are set up all positions be advertised and appointments of the best candidates made.
13. The Fire Service Commission recommends to the Minister of Intemal Affairs that the legislative and funding base for the provision of the fire and related emergency services should be reviewed in order to achieve the structure of three Regional Fire Enterprises separate from the Fire Service Commission.
14. The Fire Service Commission recommend to the Minister of Intemal Affairs that he advise Government to review the potential for consolidation, cooperation or coordination of all purchasing agencies obtaining emergency services for the Crown.


## ANNEXES



ANNEX 1. INDEPENDENT REVIEW PROJECT ORGANISATION

NEW ZEALAND FIRE SERVICE
CHIEF EXECUTIVE'S REVEW: ORGANISATION



ANNEX 2 LIST OF INTERVIEWS \& MEETINGS

## MEETING ATTENDANCE

New Zealand Fire Service Commission National Headquarters Management Meeting National Rural Fire Advisory Committee Regional Rural Fire Officers Meeting Forestry Interest Group

## EXTERNAL INTEREST GROUP

Unions \& Professional Associations
Professional Firefighters Union Institution of Fire Engineers United Fire Brigades Association

Private Commercial
New Zealand Federated Farmers
Insurance Council of New Zealand
New Zealand Business Roundtable
BOMA
Farmers Mutual Group
Carter Holt Harvey
Forest Owners Association
Related Services
Earthquake Commission
New Zealand Ambulance Board
Ministry of Civil Defence
Government Departments
Treasury
New Zealand Police
Audit Office
Secretary of Defence
Secretary of Intemal Affairs
State Services Commission
Local Government
Rotorua Rural Fire Authority
Local Government Association

## INTERNAL INTERVIEWS

## Commission

Fire Service Commission Chairman
Commissioners

Fire Service National Headquarters
Chief Executive
National Commander
National Rural Fire Officer
Director Finance
Director Administration
Director Management Information Services
Director Supply \& Maintenance
Director Works \& Property
Director Operations
Director Training
Director Personnel
Director Fire Safety
Assistant Director Planning
Regional Commands
Regional Commanders (individually)
Regional Secretaries (individually)
Regional Fire Safety Officers ( $x 2$ individually)
Regional Rural Fire Officer

## Area Commands

Area Commanders ( $x 7$ individually)
Divisional Commanders (x4)
Assistant Commanders ( $x 5$ )
Divisional Officers ( $x 5$ )
Auckland Central Crews ( $x 2$ )
Hamilton Day and Night Shifts
Volunteers
Lake Okineaka Volunteer Rural Firefighters

## ANNEX 3 REVIEWS CONDUCTED OVER LAST TWO YEARS

The following list of reviews conducted over the last two years was compiled from Fire Service records and communications. It is not comprehensive.
CATEGORY TOPIC CONDUCTED BY

Financial

Human
Resources

- Corporate Plan Development
- Corporate Reporting System
- Development of Corporate Plan Reporting
- Identify and Evaluate Controls in MIS

Environment

- Review of FIRS
- Fire Service Levy Arrangements
- Identify Cost of Providing NZFS services in Rural Areas
- Inter-Regional Comparison of Fire Service Costs per Head of Population
- Logistics \& Financial Management System
- Review Funding Options
- Review of Insurance Arrangements
- Standards and Procedures for Inventory Stock Control and Cataloguing System
- Assessment of Contract Posts
- Cost Benefit Study: Relocating Fire Service College to NZ Police College
- Develop Staff Through NZQA and IFE Examinations
- Plan to Introduce Physical Fitness Standards
Practical Examinations for Firefighter Promotions
- Review and Negotiation of Employment Contracts
- Review Decentralised Training Facilities and Consider Benefits of One Central Unit
- Review Firefighter Training Records
- Review of Training Centres
- Review of Volunteer Training and Draft Area Procedures
- Review of Workload and Staffing of Regional Mechanical Workshops
- Review Personnel Establishments and Rank Structure of Volunteer Brigades
- Review Staff Establishment of No. 4 Region Headquarters

CONDUCTED BY

ODI
Peat Marwick
K. Westwater

MIS
Planning \& Review
K. Westwater
M. Dudfield

Planning \& Review
Supply \& Maintenance
Kay Reports
J. Sloan

Supply \& Maintenance

Hay Associates
Training
Wrigley
Wrigley

Planning \& Review
Kevin Baker
Training
Planning \& Review
Planning \& Review
Training
Region 5
Working Party
Region 4

Physical Resources

- Review of 4A01 Establishment
- Scoping Review: Conditions of Employment of Firefighters
- Agreement Negotiations for Mobile Radio Service
- Alarm Transport System Update
- Allocation of Resources Between Regions
- Analysis of Station Locations
- Anthropometric Survey for Protective Clothing and Equipment Specifications
- BA Testing Procedures
- Cost Benefit of Land
- Determination of BA and Filter System Types, Locations and Air Purity Standards; and Evaluate Current Suitability of Locations
- Fire Appliance Preventative Corrosion Programme
- Fire Appliances: Authorised Establishment vs Actual Establishment
- Ladder Specifications and Maintenance Requirements
- Measurement Survey of Radio Traffic
- New Specifications for Control Room Emergency Service Turret Replacement
- Post Implementation Review of Dunedin's CAD System
- Radio Network System Reliability Measurement
- Relocation of National Headquarters
- Review Aerial Appliances Authorised Establishment
- Review Allocation, Type and Establishment of BA Equipment
- Review Establishment vs Actual and Appliance Accommodation for Portable Pumps
- Review NZFS Involvement in Transmission of Fire Alarms
- Review of Diesel Emission Problems
- Review of Fuel Purchasing and Fuelcard Use
- Review of Station Requirements for No. 6A01 District
- Review Radio Communications
- Review Replacement Criteria and Operational Requirement for Support/Ancillary Vehicles
- Review Use of Pump Rescue Tenders
- Review User Requirements and Develop Specifications with Telecom
- Strategic Communications Plan
- Suitability of Cell Phone Locational System for 111 Emergency Calls

Region 4
Hay Associates

Supply \& Maintenance
Supply \& Maintenance
Planning \& Review
Planning \& Review
Supply \& Maintenance Planning \& Review FM System

Supply \& Maintenance

Supply \& Maintenance
Supply \& Maintenance
Supply \& Maintenance
Supply \& Maintenance
Supply \& Maintenance
Supply \& Maintenance
Supply \& Maintenance
CDC Architects
Supply \& Maintenance
Supply \& Maintenance
Supply \& Maintenance

Supply \& Maintenance
Works \& Property
Supply \& Maintenance

Region 6
Teleconsultants
Supply \& Maintenance
Supply \& Maintenance
Supply \& Maintenance
Teleconsuhtants
Supply \& Maintenance

Fire Data \& Performance

- No. 4A01 District Resource Management Analysis 1993
- Analysis of Calls to Industries in Wood Related Occupancies
- Analysis of Calls to Resthomes and Hospitals
- Analysis of Deliberately Lite Fires
- Analysis of Number and Type of Calls Attended by Stations
- Classification of Building for 'high' Fire Risks
- False Alarms from Defective Apparatus -Inter-Regional Comparison
- Classification of Building for 'high' Fire Risks
- Number of Fires per Area re: Fire Safety Promotional Activities
- Proposal to Reduce Number of Fires
- Residential Property Fires - Inter-Regional Comparison
- Review Appliance Response in Christchurch, Nelson and Timaru Following CAD Installation and to Determine Regional Control Room Establishment
- Review of Colac Bay Auxiliary Fire Brigade
- Review of Fire Cause Determination Success
- Review of Fire Risk Classification
- Review of Operational Service Delivery
- Review of Public Relations
- Review of Urban Fire District Boundaries
- Review of Waiwera South Auxiliary Fire Brigade
- Survey Firefighter Service Satisfaction
- Survey of Fire Safety Clients
- Trend Analysis of Types of Calls per Region

Ministerial

- Ministerial Review of Ancillary Vehicles
- Ministerial Review of Emergency Services Co-ordination
- Ministerial Review of Fire Service Manning of Fire Appliances


## Region 4

Planning \& Review Planning \& Review

Planning \& Review
Planning \& Review Planning \& Review

Planning \& Review Planning \& Review

Planning \& Review Planning \& Review

Planning \& Review

Region 5
Region 6
Planning \& Review
Region 3
Region 3
NZ Police Public Relations
Region 5
Region 6
Planning \& Review
Planning \& Review
Planning \& Review

Operations
Operations
Operations

## ANNEX 4 FUNDAMENTAL ASSUMPTIONS, FUNDING \& ALLOCATION MECHANISMS \& ALTERNATIVE FINANCIAL FUNCTIONS

## 1. <br> FUNDAMENTAL ASSUMPTIONS

The Independent Review Team's organisation structure is as presented Chapter 4.

### 1.1 Funding \& Allocation Mechanisms

- Fire Service levy remains the principal form of funding.
- "Purchaser"/'Supplier" mechanism is to be implemented.
- Levy collection responsibilities (and related forecasting and fund management issues) are removed from the "Supplier" infrastructure.
* "Purchaser" financial structure and accounting functions are of secondary consideration, focus on supplier organisational structure.
- "Purchaser" (The Commission) "spends" its annual budget (representing annual forecast levies) by negotiation with the Chief Executive. Further the annual 'spend" identifies/splits annual appropriation between operating expenditure and capital expenditure.
1.2 Supplier Organisation Structure - Underlying Principles \& Philosophies


## Interim - (Decentralised - Divisional)

Fire Service as a whole is essentially viewed as one "national" service provider, suppliers implicitly "divisions" of the national body.

- Competition between providers is not a comerstone of reform.
- Performance benchmarking between suppliers in the form of output costing comparisons is considered a critical reform mechanism.
- Treasury
- A central treasury function is establishes as a separate reporting (profti) centre.
- The central treasury function is responsible for fund management, interest rate and exchange rate risk management on a "national" basis.
- Revenue negotiated by suppliers is received ty Treasury.
- Annual capital expenditure appropriation received by Treasury.
- Treasury maintains current account for each of the three suppliers into which annual revenue is deposited and available for drawdown at suppliers discretion.
- Treasury maintains capital pool account representing capital funds received from purchaser.
- Suppliers receive interest on undrawn Treasury "deposits" (representing interest expense to Treasury).
- Notional interest charges on undrawn capital pool account funds are imposed on Treasury.
- Treasury responsible for sourcing funds for interest bearing loans to suppliers for working capital purposes as and when required.
- Treasury derives income in the form of interest and capital gains on invested funds (Supplier deposits. Undrawn Capital Pool Funds) and exchange rate management.


## Capital Allocation

- Formal capital structures and capital structure criteria developed for regional divisions.
- Future capital allocation dictated by regional capital structure criteria and ability to service/repay debt.
- Asset utilisation charges (depreciation, maintenance) and asset funding costs (interest on working capital loans and capital loans representing capital pool drawdowns) being boum by regional suppliers.
- Regional loans repaid out of operating surpluses developed for - each regional supplier.
1.3 Decentralised-Corporate Entities
- Three independent corporate entity service suppliers established with appropriate capital structures.

Competition between suppliers is encouraged.
Performance benchmarking between suppliers in the form of output costing comparisons is considered a critical reform mechanism.

Corporate entities assume full responsibility for financial functions.
Treasury

- Each corporate entity assumes responsibility for the management of its own treasury activities.
- Negotiated annual revenue and capital funding (loans) are received direct from purchaser.
- Debt repaid out of operating surpluses.




[^0]:    1 INDEPENDENT REVIEW PROJECT ORGANISATION 2 LIST OF INTERVIEWS AND MEETINGS
    3 REVIEWS CONDUCTED OVER THE PAST TWO YEARS
    4 FUNDAMENTAL ASSUMPTIONS, FUNDING \& ALLOCATION MECHANISMS \& ALTERNATIVE FINANCIAL FUNCTIONS

[^1]:    Private Fire Service in Denmark
    The cost of the Fire Protection in Denmark is relatively low - only $55 \%$ of the New Zealand level on a per capita basis, and onty $.07 \%$ of GDP, compared to New Zealan's $0.24 \%$. About half of the Danish population is protected by a private provider, Falck. Mos: frefighters employed by both Falck and public providers are part-time, holding costs down $f \alpha$ both; nevertheless Kristensen (1983) found Falck to provide fire cover more cheaply than the puble services. Part of this was due to economies of scale arising from Falck's provision of multiple ertergency and related services -
    fire, ambulance, rescue, and car towing, and its near nation-wide ccerzion. Kristensen suggests fire, ambulance, rescue, and car towing, and its near nation-wide oceraton. Kristensen suggests that competition from Falck restrains the cost of publicly owned Fire Serices in Denmark.

