



SIAM-2, C-4 Component
Environmental, Risk and
Resource Management

Disaster Management

Fit-out specification for the
National Disaster Management
Office

September 2005

Prepared for
**Ministry of Natural Resources, Environment and
Meteorology**

by
BECA International Consultants Ltd.



▪ report

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By

Beca International Consultants Ltd

September 2005

Ministry of Natural Resources, Environment and Meteorology
Private Bag
Apia
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Attention: Vitaua Peleiupu Fuatai

Dear Sir

Fit-out specification for the National Disaster Management Office (NDMO)

Please find enclosed the fit-out specification for the NDMO. This report is a deliverable of SIAM-2, C4.

This report contains fit-out specifications for the MNREM offices at Matautu. The project team has been advised by the CEO of MNREM that the Matautu building is to be the primary location of the national Emergency Operations Centre during an emergency, as well as the location of the NDMO offices.

It is the view of the project team that the Matautu building is not an ideal facility to house the Emergency Operations Centre capability of the NDMO due to hazard vulnerabilities, and questionable structural integrity. However, the project team understands the limitations on facilities available to MNREM and has accordingly provided the fit-out specification for this location. When developing the enclosed specifications, efforts have been made to ensure recommended fittings and equipment are portable so as to allow for a move to another more suitable location, in the medium to long term. In addition the scale of the fit-out recommended is modest, reflecting the recommendation of the project team that work should continue to progress towards finding a more appropriate primary location for the operational component of the NDMO role.

Yours faithfully
Graeme Roberts
Manager - Planning



on behalf of

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Action	Name	Signed	Date
Prepared by	Debbie Cunningham, Kestrel Group Ltd		9 September 2005
Reviewed by	Michele Daly, Kestrel Group Ltd		9 September 2005
Approved by	Graeme Roberts, Beca International		13 September 2005
on behalf of	Beca International Consultants Ltd		

Table of Contents

1	Introduction	1
1.1	Background	1
1.2	Purpose of this Report	1
1.3	Definitions	2
2	Requirements of a facility for the NDMO	3
2.1	Functions during non-emergency situations	3
2.2	Functions during emergency situations – Emergency Operations Centre	3
2.3	Limitations.....	4
3	NDMO Fit-out specifications	5
3.1	Principles used in developing the NDMO fit-out.....	5
3.2	Fit-out requirements	5
3.3	Additional facilities requirements:	10
4	Summary.....	12

Appendices

Appendix A - Floor Plan for NDMO fit-out

1 Introduction

1.1 Background

This paper outlines the fit out requirements and specifications for the National Disaster Management Office (NDMO) located in the MNREM Office at Matautu.

The need for an upgraded office fit-out for the NDMO arose from a review of the NDMO capability carried out by the New Zealand Ministry of Civil Defence and Emergency Management. This report recommended that the NDMO should be fully equipped including IT and communication equipment and facilities for meetings and training/education activities. The report also recommended that the NDMO offices and emergency operations centre capability be located at the National Co-ordination Centre on Beach Road behind the Fire Station.

The World Bank funded project for SIAM2- C4.01 Environmental Risk and Resource Management was initiated and includes a task to identify the most appropriate fit out for the NDMO facilities. An additional task will specify the communications equipment needs of the NDMO for disaster management co-ordination.

A discussion document was prepared for MNREM and tabled at the Disaster Management Review workshop in June 2005. This document included an assessment of the options for the physical and organisational location of the NDMO. The discussion document outlined two options:

1. The day-to-day NDMO functions continue to be carried out at the offices at Matautu, but that the emergency operations centre capability be located at an operational co-ordination facility e.g. the National Co-ordination Centre, or another facility specifically designated and set up for this purpose. A NDMO staff member responsible for maintaining the operational capability of the facility should also be based at the operational location (all or some of the time).
2. The NDMO relocate to an operational co-ordination facility e.g. the National Coordination Centre, or another facility specifically designated and set up for this purpose.

Following the June workshops the Project Team was advised that the location of the NDMO (and the Emergency Operations Centre during an emergency situation), was to be the MNREM offices at Matautu.

The following specification is based on the premise that the NDMO is to be based at Matautu.

1.2 Purpose of this Report

The purpose of this report is to provide to MNREM with a fit-out specification for the NDMO, and the reasoning behind the recommended fit-out.

Responsibility for implementing the recommendations of this report, including procurement, installation and arranging funding, lies with the SIAM-2 Project Manager, MNREM.

1.3 Definitions

The following definitions and abbreviations are used in this report:

DAC	Disaster Advisory Committee
EOC	Emergency Operations Centre
MCDEM	Ministry of Civil Defence and Emergency Management (NZ)
MNREM	Ministry of Natural Resources, Environment and Meteorology
MWTI	Ministry of Works, Transport and Infrastructure
NCC	National Co-ordination Centre (On Beach Rd behind Fire Station)
NDC	National Disaster Council
NDMO	National Disaster Management Office (part of MNREM)
NDMP	National Disaster Management Plan
PUMA	Planning and Urban Management Agency (part of MWTI)
PNDMO	Principal National Disaster Management Officer
SOPAC	South Pacific Applied Geoscience Commission
SNDMO	Senior National Disaster Management Officer
SIAM-2	Second Infrastructure Asset Management Project

2 Requirements of a facility for the NDMO

The NDMO is currently located in the Ministry of Natural Resources, Environment & Meteorology (MNREM) offices at Matautu. This building is owned by the Government of Samoa, and houses a number of departments of MNREM.

2.1 Functions during non-emergency situations

The non-emergency requirements of the NDMO for the facilities at Matautu include:

- Office space for 2+ staff
- Meetings (including large meetings of 30+ people such as the Disaster Advisory Committee (DAC))
- Training courses for NDMO staff, response agencies, or public
- Emergency simulations
- Communications testing
- Production and storage of awareness materials and emergency plans
- Storage of emergency equipment and basic emergency supplies in preparation for emergency response

2.2 Functions during emergency situations – Emergency Operations Centre

The Project Team has been advised that the Matautu office is to be used by the NDMO in times of emergency as an Emergency Operations Centre (EOC). Neither this facility nor the National Co-ordination Centre have been used as an EOC during past emergencies in Samoa. The National Co-ordination Centre was stated as the back up location to the Matautu EOC at the DAC meeting of 23 August.

The role of the EOC during an emergency is to:

- Provide a central location for co-ordination of agency responses to any emergency
- Provide a location for meetings of the DAC and NDC if required
- Gather information from all emergency response agencies
- Develop situation reports on behalf of the agencies represented on the DAC
- Display information, maps and logs relating to the emergency
- Operate an emergency communications system to communicate with essential response agencies if primary communications are disrupted
- Provide space for emergency response agencies to have liaison representatives present if required

The Emergency Operations Centre must be able to be operational immediately following an emergency. It must be robust for hazards, and have back up utility and communications services so it can operate when these are disrupted. These include back-up generators, radio communications and emergency water supply. A pre-determined alternate location should also form part of the back-up arrangements.

The National Disaster Management Office is responsible for providing the EOC and supporting the organisation and administration of responding to the emergency. This includes tasks such as compiling information about the responses of all agencies, developing situation reports, disseminating public information, and providing administrative support for DAC and NDC meetings.

The EOC is currently staffed by the NDMO staff (2 people), although the need for additional staff as well as volunteers (from MNREM staff) has been recognised. Arrangements are to be made to source and train those volunteers to assist the NDMO during an emergency.

2.3 Limitations

The building at Matautu is not ideal for an EOC as it is not structurally designed to withstand hazard events, and its location means it is vulnerable to hazards such as cyclone, tsunami, or storm surge.

A specific structural evaluation and condition assessment have not been carried out, as this is outside of the scope of this project. However, some elements of disrepair are readily apparent.

The project team recommends that the use of the building should therefore be seen only as a short term solution before a more appropriate location can be found. Possible future options include the National Co-ordination Centre (NCC) facility (which has been designed especially for use as an EOC), SamoaTel (use of their facilities was verbally offered at a meeting with the CEO in August 2005), another existing location, or a purpose built facility located outside of hazard zones.

Formal arrangements should be made to secure at least 2 alternate facilities for use as EOCs in the event the facility at Matautu becomes unusable. The NCC has already been identified as an alternate facility – one other should be identified.

3 NDMO Fit-out specifications

3.1 Principles used in developing the NDMO fit-out

The following principles have been applied when making recommendations on the NDMO fit out:

- Where possible:
 - Equipment and fittings should be multi-purpose so that they can be used in both non-emergency and emergency situations.
 - Emergency equipment should be portable to allow transfer to the National Co-ordination Centre or other location if the Matautu facility is not to be used as the EOC, or is damaged and unusable during an emergency.
- NDMO equipment and facilities should be available for the primary use of NDMO (so that they are available in times of emergency), however may be shared by other users with the approval of the NDMO as frequent use of equipment and facilities will enable faults to be promptly identified.
- Equipment and fittings should be installed in such a way as they are robust for hazards including cyclone, strong wind, flooding, earthquake shaking and other foreseeable hazards.
- Essential emergency equipment (such as communications, PC's, air-conditioning and telecommunications) should be supported by an alternate power source.

3.2 Fit-out requirements

The fit out described below is illustrated on the floor-plan attached to this document (Appendix A).

Office 1: Principal NDMO

Fittings and Fixtures	Details	Need to be sourced or purchased?
1x Desk	For office staff.	X
1x Shelves	For filing and emergency procedures.	X
1x Whiteboard	May be portable for use in training sessions and workshops off site, and for use in operations room during an emergency.	✓
2 x Chairs	One office chair for PNDMO.	✓ 1x
1 x Pinboard	For displaying information and emergency procedures.	✓
Equipment	Details	Need to be sourced or purchased?
1x telephone	Should be able to be picked up by staff in other rooms of the building who hear the phone ring, so that in an emergency it can be used and phone operators will be able to operate from any location.	X
1 x laptop PC	Laptop required so can work from alternate locations. Recommended specification: Pentium 4 1 GB Memory (minimum 512MB) 100GB Hard Drive (minimum 40GB) Network Card Warranty (upgrade to multiple years) DVDR + RW / CD-ROM Microsoft XP Professional Microsoft Office 2000 or 2003 External PS/2 Mouse	✓

Office 2: Senior NDMO

Fittings and Fixtures	Details	Need to be sourced or purchased?
1x Desk	For office staff.	X
1x Shelves	For filing, emergency procedures and awareness materials.	X
1x Whiteboard	May be portable for use in training sessions and workshops off site, and for use in operations room during an emergency.	✓
2 x Chairs	One office chair for SNDMO.	✓ 1x
1 x Pinboard	For displaying information and emergency procedures.	✓

Equipment	Details	Need to be sourced or purchased?
1x telephone	Should be able to be picked up by staff in other rooms of the building who hear the phone ring, so that in an emergency can be used and phone operators will be able to operate from any location.	X
1 x desktop PC	Recommended Specification: Pentium 4 1 GB Memory (minimum 512MB) 120GB Hard Drive (minimum 40GB) Network Card Warranty (upgrade to multiple years) DVDR + RW / CD-ROM Microsoft XP Professional Microsoft Office 2000 or 2003 17" monitor (minimum 15")	✓
1 x UPS power supply	For desktop so it will continue to operate without backup power in an emergency without losing information.	✓
1x additional monitor	For desktop publishing uses. Any specification would be suitable.	✓

**Office 3: NDMO Administration Office /
Storage and Operational Administration area.**

Note: This room is the most structurally sound, has air conditioning and is safe from pests. It has therefore been selected as the main storage room for NDMO equipment and files.

Fittings and Fixtures	Details	Need to be sourced or purchased?
1x Shelves	For filing, emergency procedures and awareness materials.	X
1 x Storage cupboard	Lockable containing stationery, papers, plans, whiteboard markers, magnets. This is needed so that equipment is always available ready for an emergency. Otherwise if one happens suddenly, equipment may not be readily available.	✓
Equipment	Details	Need to be sourced or purchased?
1 x fax	For operational and day-to-day use. Fax is useful during an emergency to send and receive reports from agencies in Samoa and overseas. It may be that one of the telephone lines is fax capable and has fax on it.	✓
1 x printer B/W	Needed on site so can print out training materials, plans, reports day-to-day and during an emergency. In times of emergency must be able to print on site. Needs to be networked for use by all NDMO staff and other staff in the building if required. Recommended Specification: HP Laserjet 2430TN	✓

1 x printer Colour	Needed for printing official letters in colour, and small print runs of awareness materials on site and for presentations for community groups. During emergency need to print maps during times of emergency (e.g. of damaged areas, topography, weather maps). Recommended Specification: HP Inkjet 1200DN	✓
1 x AM/FM radio	Portable including batteries to listen to media reports (may move to communications room during emergency).	✓
1 x Television	Portable for monitoring media coverage in an emergency.	✓
1 x telephone	For operational use as overflow communications room (need not be live all the time so long as jacks in the office are working and phone can be plugged into them). May be stored in cupboard.	X

**Office 4: NDMO Small meeting/training room, and operational area
(telephone communications)**

Note: This space would be used as office space by future NDMO staff members.

Fittings and Fixtures	Details	Need to be sourced or purchased?
2x Desks/ tables	May be arranged as central table for small meetings, or used as desk space for new staff.	✓
1x Whiteboard	May be portable for use in training sessions and workshops off site, and for use in operations room during an emergency. Used for meetings and training on site.	✓
4 x Chairs	For meetings and training, also for use by future staff.	✓x4
Equipment	Details	Need to be sourced or purchased?
2 x telephones	For operational use as overflow telephone communications room (Need not be live all the time so long as jacks in the office are working and phones can be plugged into them). May be stored in cupboard.	✓
1 x PC	For databases and future staff use Recommended specification: Pentium 4 1 GB Memory (minimum 512MB) 60GB Hard Drive (minimum 40GB) Network Card Warranty (upgrade to multiple years) DVDR + RW / CD-ROM Microsoft XP Professional Microsoft Office 2000 or 2003 17" monitor (minimum 15")	✓

Room 5: Communications Room
(Set up permanently and used for testing during non-emergency times)

Note: This room has been selected for the communications room because it is close to the operations room so that during an emergency, agencies in attendance at DAC/NDC meetings can use the communications equipment provided. It also has the added benefit of being able to be closed off from the operations room to reduce background noise for communication.

Fittings and Fixtures	Details	Need to be sourced or purchased?
2x Desks, or built in tables	Arranged as work space around walls of this room.	✓
1x Shelves	For files, radio manuals, instructions, protocols.	X
1 x Storage cupboard	Lockable containing communications accessories and stationery.	✓
1x Whiteboard	For writing up radio messages and information.	✓
2 x Chairs	For radio operators including for radio tests each week.	✓x2
1 x Pinboard	For displaying radio operating procedures.	✓
Equipment	Details	Need to be sourced or purchased?
1 x telephone	For operational use as overflow communications room (need not be live all the time so long as jacks in the office are working and phones can be plugged into them). May be stored in storage cupboard.	✓
Communications equipment	As per communications equipment specification including alternate power source requirements (e.g. batteries).	-

Room 6: Operations Room
(used day-to-day as meeting room for multiple purposes)

Fittings and Fixtures	Details	Need to be sourced or purchased?
Tables	Arranged as central meeting space so can seat 20 people.	X
40 x Chairs	20 permanently located in room, 20 portable (e.g. stackable)	X
2 x large whiteboards	For displaying emergency status information. Preferably magnetic so information can be attached by magnet.	✓
1 x large wall map of Samoa	Covered with clear Perspex (or if unavailable, laminated) to allow marking on the map with whiteboard pens.	✓
1 x screen for projection	May be portable and stored in NDMO offices, especially useful for presentations in the field.	✓
Equipment	Details	Need to be sourced or purchased?
None required		

Room 7: Security (emergency situations only)

No equipment or fixtures required. Staff member required to monitor access to the EOC during an emergency and keep a log of all entries and exits.

Room 8: GIS/Mapping area

This area is not the responsibility of the NDMO. However mapping staff may be tasked during an emergency to produce maps as required.

Room 9: Reception

No additional requirements from the NDMO. The reception area will need to be staffed to answer and transfer calls during an emergency.

Room 10: General storage and future office staff space

This area may be used to store emergency water supplies or educational materials. No additional requirements at this stage, however if additional staff members are required they will need to be provided with desk, chair, telephone, desktop PC and storage facility.

3.3 Additional facilities requirements:

- **Backup electricity capability**

A backup generator is required to power the communications room, NDMO office equipment, air conditioning, and computers. The generator should be portable but secure and able to be removed to alternate locations if needed.
- **Backup water supply**

Water storage must be available on site for situations where water is in short supply. It is recommended that a 2500L tank be installed by a plumber to ensure water is cycled from the mains supply. This may not be necessary if the existing water tank at the rear of the building is structurally sound and secure from hazards. The existing tank should be checked by a plumber to ascertain its suitability and functionality.
- **Signage**

A large sign stating “Emergency Operations Centre” should be erected to make the building recognizable. The signage on the NCC facility should be removed in order to reduce confusion over the location of the Emergency Operations Centre.
- **Structural changes**

It is understood that the wall of the existing mapping section is to be removed. It would be ideal for an additional wall to be built to separate the NDMO space from the other department, and to install a door way from Room 4 to the space outside Room 1. Again, no specific structural evaluation has been carried out, but this will be required.
- **Access to NDMO office space**

Staffing of the reception area of the office has been assumed in this report, and therefore no NDMO activities have been allocated to that room. However when the existing mapping section wall is removed there will be no direct access to the NDMO offices so a door way would be required through the reception area for direct access to the NDMO facility.

In order to allow a separation of the NDMO Offices from other departments in the building a small dividing wall is suggested. A doorway in this wall may be necessary to allow easy access to the bathroom facilities.

- Kitchen and Toilet facilities in the building will be used by the NDMO during day-to-day operations and emergency situations.
- The EOC may be required to operate 24 hours a day 7 days a week during an emergency.

4 Summary

The list below summaries the fixtures, fittings and equipment that need to be sourced or purchased in order to fit out the National Disaster Management Office. Equipment already available at the NDMO is not included on this list.

No.	Description
4x	Whiteboards (medium size, may be portable or fixed)
2x	Whiteboards (large size, preferably magnetic)
8x	Chairs (meeting style)
3x	Pinboard
1x	Laptop PC
2x	Desktop PC
1x	UPS unit for desktop PC
1x	Additional computer monitor
2x	Lockable storage cupboard
1x	Fax machine
1x	Laser printer (B/W)
1x	Inkjet printer (Colour)
3x	Telephone sets (and ensure lines are available to be used)
1x	AMFM radio
1x	Small TV
2x	Desks
1x	Desks or built in work bench for communications room
1x	Wall map of Samoa including Perspex protection sheet or lamination
1x	Portable projector screen
1x	Generator
1x	2500L water tank (if required after check of existing tank)
1x	Large outdoor sign "Emergency Operations Centre"
	Stationery supplies - various

- Appendix A

Floor Plan for NDMO fit-out

Floor Plan for NDMO fit-out

