

Maritime transport operator plan for Victoria University



Raukawa Challenger MNZ122256

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1. Operational details

1.1 Full legal name of the operator

Victoria University of Wellington

1.2 Overview of the operation and its maritime activities

Victoria University operates four vessels (Raukawa Challenger, Pipi, Tuatua and Tipa) primarily in the Wellington Region. The vessels are used to carry out research and to support teaching. The vessels are used for non-commercial purposes on rare occasions.

1.3 Primary ports and area of operation

Wellington harbour and South Coast
Kapiti Coast
Marlborough Sounds/Nelson

1.4 Vessel categories

Passenger
Non-passenger
Fishing

1.5 Vessel activities

Research including deployment and retrieval of fishing gear and scientific equipment
Diving tender
Non-commercial use

1.6 Operation contact details

Victoria University Coastal Ecology Laboratory
396 The Esplanade
Island Bay, 6023

1.7 Contact persons

| Name | Position | Contact phone number |
|-------------------|-----------------|----------------------|
| John van der Sman | Boating Officer | 027 534 8377 |
| Kevin Burns | Head of School | 04 463 6873 |
| David Harper | Dean of Science | 04 463 5561 |

1.8 Responsibilities

| Person responsible for compliance | Area of responsibility | | | |
|-----------------------------------|------------------------------|-----------------------------|--|-----------------------|
| | Maritime transport operation | Resourcing of the operation | Crew training and competency assessments | Operational decisions |
| David Harper | √ | | | |
| Kevin Burns | | √ | | |
| John van der Sman | | | √ | √ |

2. Control of information, records and documents

2.1 Location of Maritime Transport Operator Certificate (MTOC)

The Maritime Transport Operator Certificate (MTOC) is available to be viewed in the technician's office at the Victoria University Coastal Ecology Laboratory.

2.2 Location of maritime transport operator plan

The Marine Transport Operator Plan (MTOC) is stored on the vessel. An electronic copy is located in the appendix of the Victoria University Coastal Ecology Laboratory Operation Manual which can be downloaded from the web site.

<http://www.victoria.ac.nz/sbs/research-centres-institutes/vucel>

2.3 Sharing the operator plan with crew and personnel

A copy of the operator plan will be made available to all new personnel. Any parts of the plan relevant to their position must be read and understood before taking responsibility in the operation. Feedback is encouraged on the effectiveness of the policies and procedures. This information will be used during the annual MTOC review process.

2.4 Review and continuous improvement of operator plan

The Operator Plan will be reviewed annually before the end of the year and the summer field work season. Reviews will also be conducted after the occurrence of any accident or incident or whenever new information demonstrates the need for immediate improvement.

Any changes made to the Operator Plan will be recorded in the Review Log (appendix 8).

If changes are made to the Operator Plan, the hard copy located on-board the vessel will be replaced by the current version as soon as practicable and before any operation of the vessel.

All staff and crew will be made aware of any changes that have been made.

2.5 Crew qualifications and records

Operation of the vessel is permitted only by crew who hold the minimum qualification of Skipper Restricted Limits (SRL) or above. New operators must be familiar with the operator plan and must be inducted before operating the vessel (see appendix 2 and 4).

Current operators are:

| Employee Name | Certificate of Competency / Endorsement | MNZ Reference | Expiry date |
|-------------------|---|---------------|-------------|
| John van der Sman | Skipper Restricted Limits | SRL-11804 | 21/6/2020 |
| Don Nelson | Commercial Launch Master | 3647 | 31/3/2019 |
| Don Nelson | Qualified Fishing Deckhand | 2685 | |
| Don Nelson | STCW Endorsement | | |

Copies of crew qualifications are held on the vessel. Copies are also held in the technician's office at the Victoria University Coastal Ecology Laboratory.

2.6 Accident and incident recording and reporting

Details of any accident, incidents or mishaps will be recorded in the vessel logbook. Accidents, incidents and mishaps resulting in serious harm will be reported to Maritime NZ as soon as practicable.

Events need to be reported verbally first either on VHF channel 16 or by phoning the Rescue Coordination Centre of New Zealand (RCCNZ) on 0508 222 433. Events must then be reported online at <http://www.maritimenz.govt.nz/Commercial/Accidents-and-investigations/Accidents-and-investigations.asp>

The information will also be copied onto the Incident and Accident Register (appendix 11) at a more suitable time. All accidents and incidents will be reviewed by the VUW Diving and Boating Committee to determine whether corrective action needs to be taken. If it is determined that changes to procedures and/or further training are required, this will be undertaken as soon as possible.

2.7 Ship's log

Details of all uses of the vessel are recorded in the vessel logbook including:

- weather conditions
- activity
- area of operation
- time started and time finished
- number of persons on board
- pre departure checklist
- incident, accidents or mishaps
- mechanical failures and equipment failures
- maintenance details
- notable radio communications
- hazards to navigation
- training and drills
- non-commercial use
- engine hours
- bunkering details

2.8 Trip reporting

A trip report to a shore station (channel 14 or channel 16) will be made on all trips. Trip details to report will include:

- Name of vessel and call-sign
- Return time
- Number of persons on board
- Destination and activity

A close of trip report will be made to the shore station at the end of the trip.

If there is a delay or a change of plans, the shore station will be notified during the course of the trip.

A 'Day Plan' will be created for every trip using the Fieldteq software.

2.9 Audits of operator plan by MNZ

External audits conducted by Maritime New Zealand will be undertaken with the full cooperation of Victoria University of Wellington.

Details of audits carried out will be entered on the Record of External Audits, Inspections and Surveys (appendix 9). Copies of audit reports will be stored in the technician's office at the Victoria University of Wellington Coastal Ecology Laboratory.

3. Health and safety

3.1 Safety policy

Victoria University of Wellington will ensure that all reasonably practicable safety controls are implemented to provide for the safety and health of all participants and others who may be affected by its undertaking. This will be achieved by ensuring that all skippers and participants know and practice the Safe Operating and Emergency Procedures established within this operator plan and contained in legislation and good practice guidelines. Crew will be informed of all hazards, risks and safety controls including procedures. All skippers and crew will be actively engaged in hazard identification, risk assessment and control, and assist in continuous improvement of this operator plan.

3.2 Hazard identification, risk assessment and control

All skippers and crew will actively engage in hazard identification and risk assessment. Newly identified hazards and risks will be controlled and recorded in the vessel logbook and reported to the boating officer as soon as possible. All reported hazards and risks will be recorded in the Hazard and Risk Register (section 7) and Record of Hazards Reviews (appendix 10).

If the hazard cannot be eliminated it will be isolated; if it cannot be isolated it will be minimised. If a hazard cannot be eliminated, the hazard and controls will be recorded in the Hazard and Risk Register. All skippers and crew who could be exposed to, or will be involved in controlling the newly identified hazard will be notified of the hazard and any controls established.

If procedural changes are required, the relevant section of the operator plan will be reviewed in accordance with section 2.4 (Review and continuous improvement of operator plan).

Reviews of all identified hazards and risks will take place at least annually or if the assessment is no longer valid such as following an incident, accident or introduction of new equipment or process. Review will be recorded in the Hazard and Risk Register and Record of Hazard Reviews (appendix 10).

3.3 Fatigue management

To minimise the effects of fatigue, skipper and crew will have adequate rest and nutrition and ensure that they remain hydrated while on the vessel. Skipper and crew will guard against exposure to sun and wind and carry adequate weather protection for changing conditions.

If the skipper becomes fatigued, he/she will take a break or a nap and have something to eat and drink. The skipper must ensure that the crew do not become fatigued. If the risk

becomes unacceptable, solutions are to make crew take a break or a nap, have something to eat and drink, and to rotate tasks among crew.

Other actions to mitigate the risks of fatigue may include finding replacement crew, adjusting schedules or cancelling operations if necessary.

3.4 Drug and alcohol policy

The use of alcohol and illicit drugs are prohibited on board the vessel.

There may be risks associated with the use of prescriptive medicines such as impaired judgement. The use of prescriptive medicines by skipper or crew will be disclosed to the boating officer before any trip. The boating officer will decide if the risks of the prescriptive medicine is acceptable.

3.5 Health monitoring of crew

The skipper will monitor the wellbeing of the crew at all times. Crew may become unwell from the effects of hypothermia, seasickness, fatigue or pre-existing medical conditions and become a risk to the safe operation of the vessel. Actions to mitigate the risks may include finding replacement crew, adjusting schedules or cancelling operations if necessary.

3.7 Environmental policy

Victoria University will strive to run as clean an operation as possible. We will do this by following all pollution prevention procedures established in this operator plan (see section 3.8). We will meet or exceed all legal requirements and where possible will use only environmentally friendly and biodegradable products.

3.8 Pollution Prevention

- All rubbish will be placed in the rubbish bag kept in the wheelhouse.
- No rubbish will be left on deck, in case it blows into the water.
- All rubbish will be taken ashore by the skipper at the end of the day.
- No rubbish is to be thrown overboard
- Oil waste will be disposed of at the waste oil recycling centre
- Oil in the bilge will be pumped out and disposed of at the oil recycling centre

Sewage will not be discharged:

- within 500 metres from land (mean high water spring)
- in water less than 5 metres deep
- within 500 metres from a marine farm or mataitai
- within 200 metres of a marine reserve.

Should it not be possible to discharge sewage at sea, arrangements will be made to have it removed and disposed of properly ashore.

4. Crew familiarisation and training

4.1 Induction and training

Skipper

Before taking the vessel to sea, any new skippers must read and understand this Maritime Transport Operator Plan and be trained and conversant in all competencies relevant to the safe and clean operation of the vessel.

New skippers will complete and sign a copy of the Skipper Induction Checklist (appendix 2) and sign a copy of the Standing Orders (appendix 6). An entry will be made in the Skipper Induction Register for each new skipper (appendix 4). The Skipper Induction Register and completed forms will be stored in the Skipper Records File in the technician's office at the Victoria University Coastal Ecology Laboratory.

New crew member

All new crew members will be given a Safety Briefing (appendix 1) and must complete and sign a copy of the Crew Induction Checklist (appendix 3). An entry will be made in the Crew Induction Register for each new crew member (appendix 5). Completed forms will be stored in the in the Crew Records File in the technician's office at the Victoria University Coastal Ecology Laboratory.

Any skipper employed by Victoria University may conduct new crew member training. All new skippers and crew must receive a safety induction (including reading the hazard register) and sign the relevant section of the induction sheet before going to sea.

4.2 On-going training

Training exercises will be carried out at intervals not exceeding six months. Where it is not practical to undertake a simulated exercise, the use of the associated equipment will be discussed and made familiar.

All drills and refresher training will be recorded in the vessel logbook and in the Training Exercises File (appendix 7). The file is kept in the technician's office.

Training outcomes that could require changes to procedures in this operator plan may result in an immediate review (if necessary) or be considered at the next review.

5. Vessel details

5.1 The vessel

| | |
|---------------------|--------------------------|
| Vessel name | Raukawa Challenger |
| MNZ number | 122256 |
| Construction | Aluminium |
| Manufacturer | Q-West Boat Builders Ltd |
| Date of Manufacture | 1997 |
| Length | 8.00 |
| Beam | 2.60m |
| Draught | 1.00m |
| Engine | Volvo (178kW) |
| Propulsion | Duo prop stern leg |



5.2 Operational Limits

| Operating limit | Type of Ship | Operating area | Maximum no. passengers | Maximum persons |
|--------------------|---------------|--|------------------------|-----------------|
| Enclosed waters | Passenger | Wellington, Porirua, Nelson, Picton (Trips to be under 20 minutes) | 10 | 11 |
| Inshore Fishing | Fishing | As defined in rule 20.2 | 0 | 8 |
| Restricted Inshore | Non-passenger | Wellington, Kapiti, Nelson/Marlborough Inside a straight line commencing at Turakirae Head from there 205° for 3M, from there to follow the coast within a distance of 3M to a point 3M from Cape Palliser and then 0° to Cape Palliser | 0 | 8 |

5.3 Current vessel certificates

Current certificates can be found in appendix 12.

5.4 Vessel exemptions, special conditions or limitations

6. Safe operating procedures

6.1 Conditions in which the operation is conducted

The skipper is responsible for the safety of the vessel and all persons on board at all times. Operations will be altered or suspended at any time the safety of the vessel or crew is in doubt. Victoria University of Wellington fully supports any decisions made by the skipper to ensure the safety of the vessel and crew.

The skipper will consider at least the following information when making decisions about the operation of the vessel:

- current and forecast weather conditions and sea state
- visibility
- tidal flows (including any changes that could result in wind against tide)
- traffic density
- the health, mobility and comfort of all persons on board
- any other information relevant to the safety of the operation.

6.2 Voyage checks

| Voyage check details | Before departure | At sea | After Voyage |
|--|------------------|--------|--------------|
| Notify contact person | X | | X |
| Check weather forecast and tide | X | X | |
| Visual check of hull and mooring lines | X | | X |
| Check VHF radio (trip report) | X | | X |
| Check fuel level | X | | |
| Check engine oil | X | | X |
| Check coolant level | X | | X |
| Check belt tension | X | | X |
| Start engine and check battery voltage, oil pressure and temperature | X | X | X |
| Check engine alarms | X | | |
| Check cooling telltale | X | | |
| Check bilge for fluids | X | | X |
| Test bilge pump and alarm | X | | X |
| Check depth sounder | X | | |
| Check chart plotter and GPS | X | | |
| Check navigation lights | X | | |

| | | | |
|--|---|---|---|
| Check gear is properly stowed | X | X | |
| Check vessel is trimmed correctly | | X | |
| Check outstanding issues from previous logbook entry | X | | |
| Write up log book | X | X | X |
| Record faults and maintenance issues | X | X | X |
| Record new hazards | | | X |

6.3 Diving operations

The skipper will know the dive plan. The dive flag will be displayed while divers are in the water. The skipper will give a safety briefing that includes the following points:

- Recall procedure - banging on the side of the vessel or revving of the engine. Divers are to surface immediately.
- Potential hazards relevant to the site (e.g. currents).
- Entry procedure – giant stride off the stern platform. Swim away and keep clear of the propellers.
- Pickup procedure. Waving an arm or inflating a safety sausage will result in a pickup. One hand placed on top of the head indicates 'All OK'.
- Move away from rocks on surfacing. Board the vessel only when told to do so using the ladder at the stern.
- A line may be thrown so that the diver can be towed away from a dangerous situation. The line should not be tied to the diver (so that the diver can let go if necessary). The diver will find it easier to breathe using their regulator in this situation.
- Exceeding the planned dive time will result in an emergency situation (i.e. the Maritime Rescue Coordination Centre will be notified and an enquiry will be held)
- If the vessel is not at anchor, divers must keep clear of the propeller and board only when told to do so using the ladder at the stern.

Record the following in the logbook:

- Name
- Dive start time
- Cylinder pressure at start of dive
- Dive end time
- Cylinder pressure at end of dive
- Maximum depth

Skippers will make a mental note of the divers' direction of travel and watch for bubbles on the surface while the divers are in the water.

Skippers will ensure that the vessel is out of gear whenever divers are entering or exiting the water. Caution will be exercised to ensure that the safety of the vessel does not become compromised when divers are slow to get back aboard. When such danger exists, divers will be towed to a location where boarding can take place safely.

6.4 Safe transportation of cargo and goods

The skipper will be aware of the vessel's stability at all times and adjust for the weather conditions. The skipper will ensure that the vessel is not overloaded and that gear is secured to prevent movement.

All gear will be evenly stowed. Heavy items will be stowed as low as possible. The crew will be positioned so that the boat sits evenly in the water. The crew position will be adjusted as gear is moved on and off the boat.

The skipper will be alert to the ability of the boat to right itself when rolling. Changes in stability could be the result of overloading, excessive water or incorrect weight positioning.

A danger to the vessel's stability is the free surface effect of water. When the water moves from side to side as the vessel moves, the vessel's ability to right itself is reduced. The skipper will ensure that excess water is pumped out of the vessel and scuppers are open so that water can drain away.

The maximum load for the vessel is 900kg. To calculate loading, allow 75kg/person, 20kg/dive cylinder, 20kg gear/diver.

6.5 Safe operation of machinery and equipment

The Raukawa Challenger is fitted with a hydraulic pack to power a hauler on the starboard shoulder of the vessel. Rope is hauled through a block supported by a gusseted aluminium davit. The vessel also has a hydraulically operated gantry for lifting gear over the stern.

Stability can be severely compromised when hauling bottom gear that may be stuck or fouled. The winch and gantry will therefore be used with caution and only by an experienced operator.

Before using the winch or gantry the skipper will:

- Check the condition of the davit block and shackle
- Assess the sea conditions and weather
- Ensure the crew understand the dangers of having body parts near the block
- Ensure the crew keep clear of ropes especially when paying out

6.6 Radio communications

All crew will be trained to have basic knowledge of operation of the vessel's VHF radio. Detailed information is in the Radio Handbook that is carried on board at all times.

Key information to operate VHF:

- Turn the radio on, adjust the volume and squelch, and select a channel.
- **Listen.** Others may be using the channel for messages more urgent than your own.
- **Think.** Prepare what you are going to say before you transmit, and keep your message brief.
- When not transmitting, make sure you do not hold down the transmit switch (Push to Talk or PTT). If this switch is jammed or held down by mistake, it prevents any other person from transmitting any messages on your selected frequency or channel, and your radio cannot receive.
- Speak simply and clearly, using the correct words.
- Avoid using local names, terms and jargon, which will cause confusion.
- Stow the microphone properly at all times when not in use to avoid accidental transmission.

A RADIO DISTRESS CALLING procedure sticker is located on the front of the instrument panel.

RADIO **DISTRESS** CALLING

Use only if you are in imminent danger and need immediate help.

Activate distress beacon if carried. Wear lifejackets.
Switch radio to full power.

- 1 **VHF Ch 16** (or SSB 2182, 4125, 6215, 8291)
- 2 **MAYDAY MAYDAY MAYDAY**
- 3 **THIS IS** **3 TIMES**
- 4 **CALLSIGN** **ONCE**
- 5 **MAYDAY**
- 6 Vessel's latitude and longitude, or bearing and distance from a known landmark
- 7 Nature of distress and assistance required
- 8 Other information – number of persons on board, description of vessel, liferaft or dinghy carried
- 9 **OVER**
- 10 Allow a short time for reply. If no reply, repeat the distress call, working through all the distress frequencies on the radio. If contact is made with a shore station, tell them you have activated your distress beacon and follow their instructions.

6.7 Anchoring

- Good judgement will be used to find a suitable anchorage, taking into account the depth, the type of anchor, the nature of the sea bed and the shelter offered.
- The depth sounder will be used to check the depth. The anchor line should be five times the depth of water. More anchor line will be used in windy conditions.
- The anchoring site will be approached at slow speed, and the boat directed into the tide or wind.
- The engine will be put into neutral and the vessel stopped to allow the tidal flow or wind to give a little sternway
- As the boat goes astern, the anchor will be lowered until it just touches the bottom and the anchor line slowly laid out.
- Once the anchor line has been secured, the vessel should dig the anchor in when its weight comes to bear on the line.
- The skipper will check that the anchor is not dragging by checking that transit bearings on shore stay in the same position

Foul Anchor

A foul anchor may be freed by manoeuvring in the opposite direction that it was laid, and attempting to pull from different directions. Beware that using the engine to free up the anchor can be dangerous and cause the boat to capsize. Under no circumstances should the anchor be fastened to any other point than the bollard.

The position of the anchor rope will be monitored at all times to avoid entanglement in the propeller. If the anchor does not come free, divers may be sent down to retrieve the anchor providing that it is safe. This decision will be at the discretion of the dive supervisor. Otherwise the anchor line and buoy will be released from the vessel and retrieved at a later time.

6.8 Bar crossings

Extreme caution will be exercised when crossing bars. All bars have areas of broken water containing air that can severely reduce the stability and handling of a vessel. Conditions may cause unusually sudden steep and often breaking seas and can change quickly and unpredictably. Seek local knowledge.

When the conditions are marginal or adverse no situation warrants taking the risk, so if in doubt "STAY OUT".

Before leaving harbour the skipper will assess conditions on the bar. As a rapid change in conditions may prevent a safe return to harbour, if there is any doubt, the vessel will return to port. Adequate reserve fuel will be carried to enable the vessel to divert to another port or safe haven should adverse bar conditions prevail on return.

Before crossing a bar at the entrance to a river or estuary:

- Check the weather, tide and bar conditions
- Contact coastguard or maritime radio immediately prior to crossing
- Ensure adequate stability (ensure weight including crew load is kept low)
- Batten down (secure hatches, properly stow anchor and other equipment, open freeing ports)
- Lifejackets must be worn and all crew must be awake
- Approach at moderate speed
- Post a lookout to monitor sea conditions astern
- If in doubt – don't cross
- Avoid ebb tide. The best time to cross a bar is at high water
- Avoid crossing at night

Communicate you successful crossing to Coastguard or Maritime radio

6.9 Refuelling

Refuel in a well ventilated area, away from sparks and other sources of ignition. Absorbent material and detergent is available under the cabin seats in case of spills.

- Ensure scuppers are closed
- Ensure fire-fighting equipment is near at hand and ready for use
- Wipe fuel containers and funnel to prevent contamination of the fuel
- No smoking
- Record quantity in log book

The auxiliary engine is a four stroke and does not require oil in the fuel. The air vent for the auxiliary engine fuel tank should be kept closed when the engine is not in use to prevent spillage.

Any spillage must be reported to the Harbour Master.

6.10 Carriage of dangerous goods

Gas cylinders, dive cylinders and fuel containers will be stowed in a manner to prevent movement and accidental discharge. All flammable material will be carried on the open deck in a well ventilated location so that no heavy fumes can accumulate.

6.11 Operating in fog

Fog sometimes occurs in summer on the Wellington South Coast and visibility can be drastically reduced. Fix a position on the chart by visual means before the fog arrives. Switch on navigation lights. Proceed with caution using the radar, compass, depth sounder and chart plotter to assist. Signal a long blast on the horn every two minutes. Stay away from the shipping lanes. If another fog signal is heard and the direction cannot be determined, stop and signal two long blasts every two minutes. Post lookouts and be ready for an immediate manoeuvre. Reduce all unnecessary noise.

7. Hazard and Risk Register

| Hazard | Potential Harm | Significant (Yes / No) | Isolate or Minimise | Actions Required / Controls in Place |
|-----------------------------|--|------------------------|---------------------|---|
| Adverse weather | Hypothermia Seasickness Drowning | Yes | M | <ul style="list-style-type: none"> • Check marine forecast before leaving • Return if weather deteriorates • Monitor local conditions. |
| Anchoring | Crushing of hands Entanglement | No | M | <ul style="list-style-type: none"> • Trained operator • Stand clear when operating • Lash anchor when underway |
| Boarding and disembarking | Slips, trip, falls | No | M | <ul style="list-style-type: none"> • Check for suitable clothing and shoes • Advise caution • Advise to remain well clear until asked to board or disembark • Assist if required |
| Berthing | Crushing of body parts | No | M | <ul style="list-style-type: none"> • Advise not to block view • Advise to keep body parts inside the vessel |
| Moving vessel | Slips, trips, falls | No | M | <ul style="list-style-type: none"> • Instruct to use hand holds and avoid moving while vessel is underway • Instruct to avoid crowding in one area |
| Movement of stores and gear | Crushing, slips, trips, falls | Yes | M | <ul style="list-style-type: none"> • Safely secure all stores and gear • Ensure personal items are secured safely |
| Pot hauler operation | Crushing | Yes | M | <ul style="list-style-type: none"> • Keep crew well clear of rope • Keep fingers clear of rotating wheel |
| Cold exposure | Hypothermia | Yes | M | <ul style="list-style-type: none"> • Monitor wellbeing of crew at all times especially divers with thin wetsuits • Look for signs such as shivering, cold hands and feet, loss of dexterity, numbness • Encourage crew to eat high energy food such as chocolate and have warm drinks • Ensure suitable clothing on board (hats, wind proof coats, towels) • Replace wet clothing • Return to shore |
| Sun exposure | Sunburn | No | M | <ul style="list-style-type: none"> • Monitor wellbeing of crew at all times • Ensure sun block is available and its use is encouraged • Encourage appropriate clothing |
| Severe vessel movement | Slip, trips, falls | No | M | <ul style="list-style-type: none"> • Monitor wellbeing of crew at all times • Adjust vessel speed and course for the sea state and loading of the vessel • Advise of sudden increase in speed |
| Capsize | Drowning Hypothermia | Yes | M | <ul style="list-style-type: none"> • Stay away from breaking waves • Monitor sea state at all times • Work from the centre of the vessel if possible. • Minimise quick erratic movement of weight (including crew members) |

| Hazard | Potential Harm | Significant (Yes / No) | Isolate or Minimise | Actions Required / Controls in Place |
|---|--|------------------------|---------------------|--|
| | | | | <ul style="list-style-type: none"> Secure all heavy equipment on the vessel. |
| Slippery decks | Slips, trips, falls | No | M | <ul style="list-style-type: none"> Awareness – safety briefing Check for appropriate footwear Keep deck clear and clean of seaweed etc. |
| Person overboard | Drowning Hypothermia | Yes | M | <ul style="list-style-type: none"> Avoid operating in adverse weather conditions Advise of sudden increases in speed Advise to use hand holds and avoid moving while vessel is underway At safety briefing, instruct on the emergency procedure and highlight location of life rings Regular training exercises |
| Fire | Burns | Yes | M | <ul style="list-style-type: none"> Ensure vessel maintenance schedule is up to date Ensure fire extinguishers are regularly serviced Regular training exercises |
| Grounding | Hypothermia Slip, trips, falls | No | M | <ul style="list-style-type: none"> Use charts to check for potential hazards Maintain an adequate watch at all times Reduce speed around rocks and be ready to manoeuvre as required |
| Refuelling | Burns from fire Spills | No | M | <ul style="list-style-type: none"> Shut down engine while refuelling Close scuppers No smoking while refuelling |
| Collision | Drowning Hypothermia Broken bones Lacerations | Yes | M | <ul style="list-style-type: none"> Operate at a safe speed for the conditions Keep a lookout at all times |
| Diver on the surface (collision with vessel or propeller) | Lacerations Broken bones | Yes | M | <ul style="list-style-type: none"> Ensure engine is in neutral and vessel is stopped when retrieving diver Advise diver on boarding procedure |
| Engine failure | Slip, trips, falls Hypothermia | No | M | <ul style="list-style-type: none"> Ensure vessel maintenance schedule is up to date Ensure sufficient fuel is available |
| Surf zones | Drowning Hypothermia Lacerations Broken bones | Yes | M | <ul style="list-style-type: none"> Do not operate the vessel on the shore side of white water Maintain a lookout at all times Position the vessel with the bow towards the swell direction Be prepared to move the vessel quickly |
| Entanglement | Crushing Trips, slips, falls | No | M | <ul style="list-style-type: none"> Stow ropes safely Advise on the dangers of moving ropes |
| Fatigue | Hypothermia Trip, slips, falls | Yes | M | <ul style="list-style-type: none"> Ensure that all on board are well rested Take regular breaks with food and drink |

| Hazard | Potential Harm | Significant (Yes / No) | Isolate or Minimise | Actions Required / Controls in Place |
|--------|----------------|------------------------|---------------------|--|
| | | | | <ul style="list-style-type: none"> Do not work more than 16 hours in a 24 hour period |

8. Safety equipment list

| Navigation Safety Equipment | | | |
|--|---|------------------------------------|----------------------------|
| Item | Description | Location | |
| Compass | | Cabin | |
| GPS | | Cabin | |
| Chart plotter | Garmin | | |
| Depth sounder | | Cabin | |
| Clock | Digital watch and clock on cell phone | Cabin | |
| Charts: | NZ46, NZ463, | Cabin | |
| Parallel rule/divider/pencil | | Cabin | |
| Binoculars | | Cabin | |
| Almanac | | Cabin | |
| Communications Safety Equipment | | | |
| Item | Description | Location | Expiry/service date |
| EPIRB | Float Free 406MHz Manually activated | Cabin near door | 2/27 |
| VHF radio | | Cabin | Surveyed 4/14 |
| Flares | Rocket (x4) Smoke (x2) | Yellow container on cabin floor | Rocket Smoke |
| Horn | Manual | Cabin floor | NA |
| Torch | Dolphin | Under cabin seat | NA |
| Dive flag | | Deck bulwark | NA |
| Lifesaving Safety Equipment | | | |
| Item | Description | Location | Expiry/service date |
| Life raft | 8 person | Cabin top | Serviced 5/15 |
| Hydrostatic release | For life raft | Cabin top | Expiry 5/16 |

| | | | |
|--------------------|----------------------------------|--|----|
| Life buoy (x2) | One with self – activating light | Under cabin top at back of cabin | NA |
| Throwing quoit | | On grab handle just outside cabin door | NA |
| Life jackets (x12) | 100N, whistle, light | Under cabin seat | NA |
| Tool kit / spares | | Under cabin seat | NA |

Anchoring and Mooring Safety Equipment

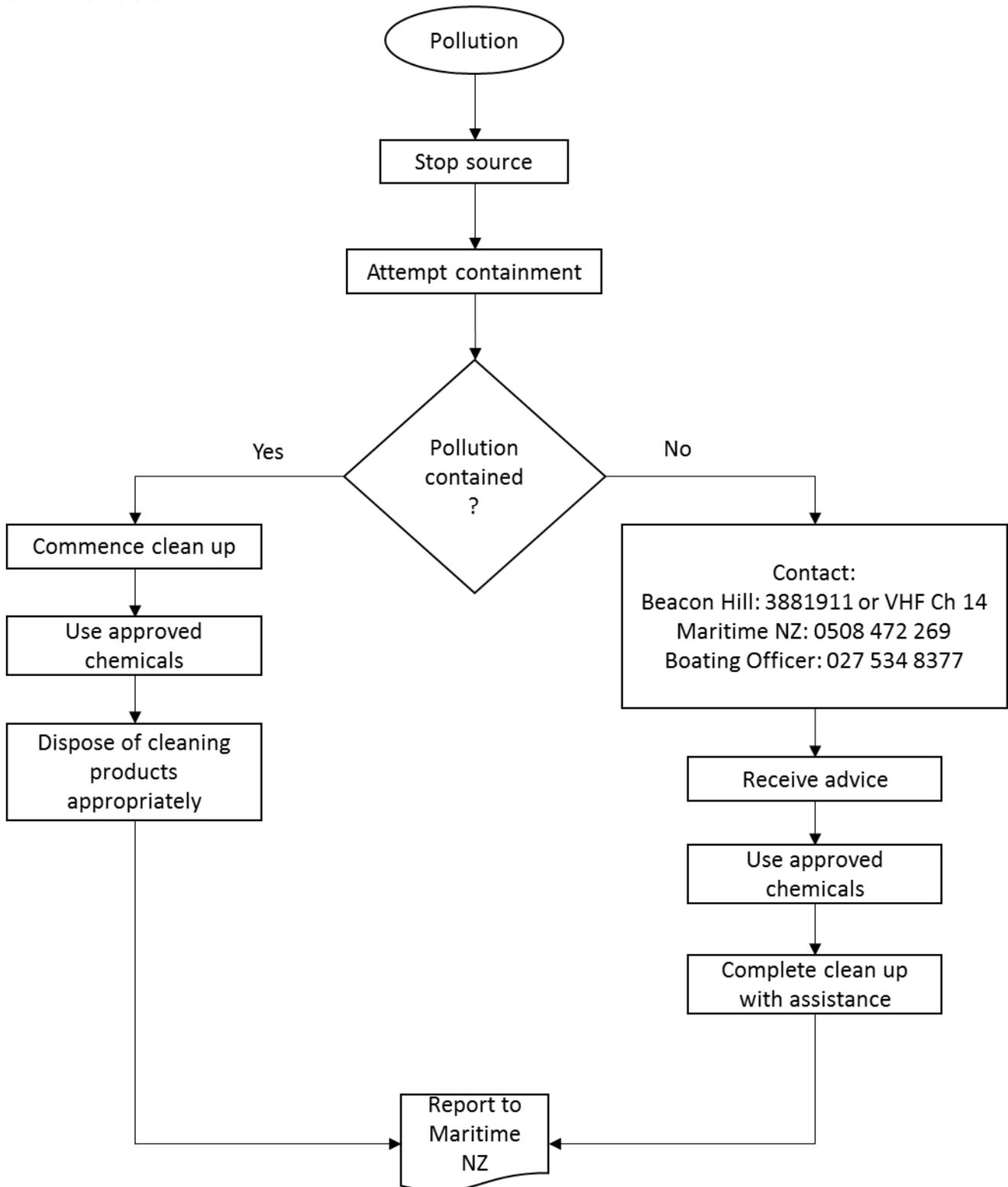
| Item | Description | Location |
|---------------|--|--|
| Anchors | 1 x Danforth 15kg 1 x Grapnel | Anchor fairlead Under cabin console |
| Anchor warp | 6mm chain (30 meters) 12mm braided polyester (100 meters) | Anchor well |
| Boat Hook | | Deck bulwark |
| Mooring Lines | Set | Under cabin console |
| | | |

Fire Fighting Appliances Safety Equipment

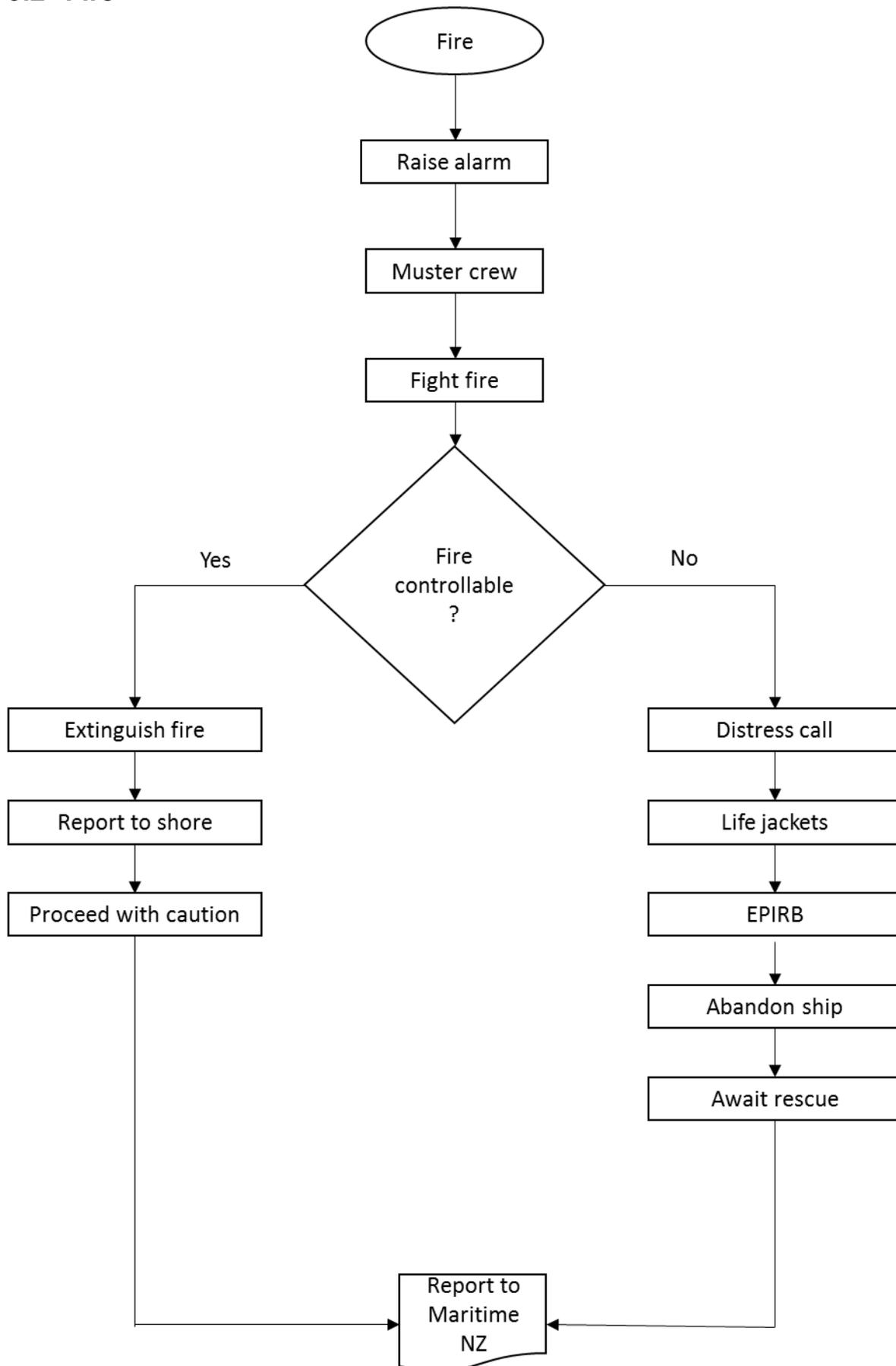
| Item | Description | Location | Expiry / service date |
|--------------------------|-----------------|-------------------------|-----------------------|
| Fire Extinguishers | Foam | Cabin | Serviced 5/15 |
| | Dry powder | Cabin (by door) | Serviced 5/15 |
| | CO ₂ | Outside cabin (by door) | Serviced 5/15 |
| Bucket (x3) | | Deck | NA |
| Fire pump with fire hose | Engine operated | Deck | NA |
| First Aid Kit | | Cabin | Serviced 5/15 |

9. Emergency procedures

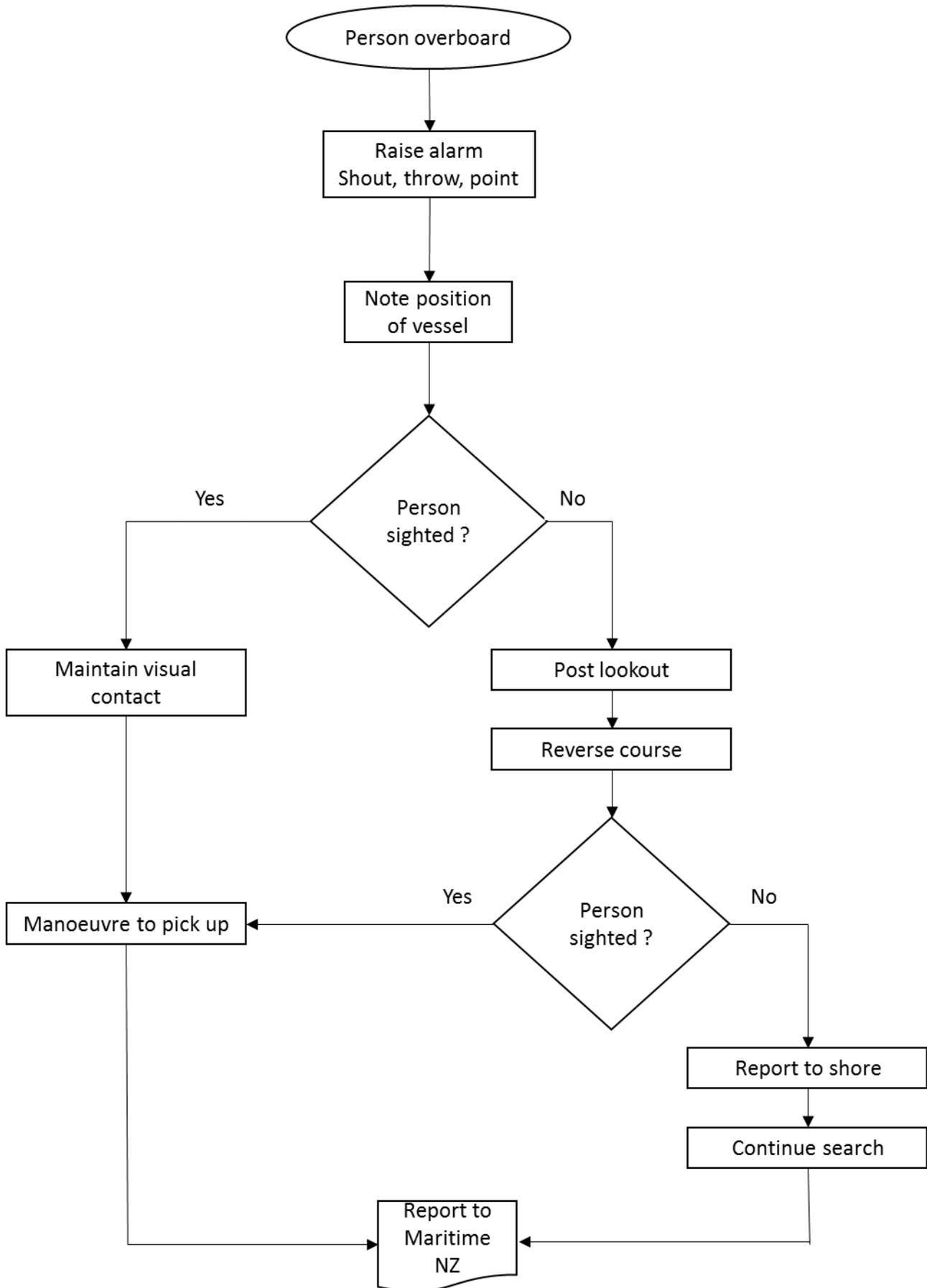
9.1 Pollution



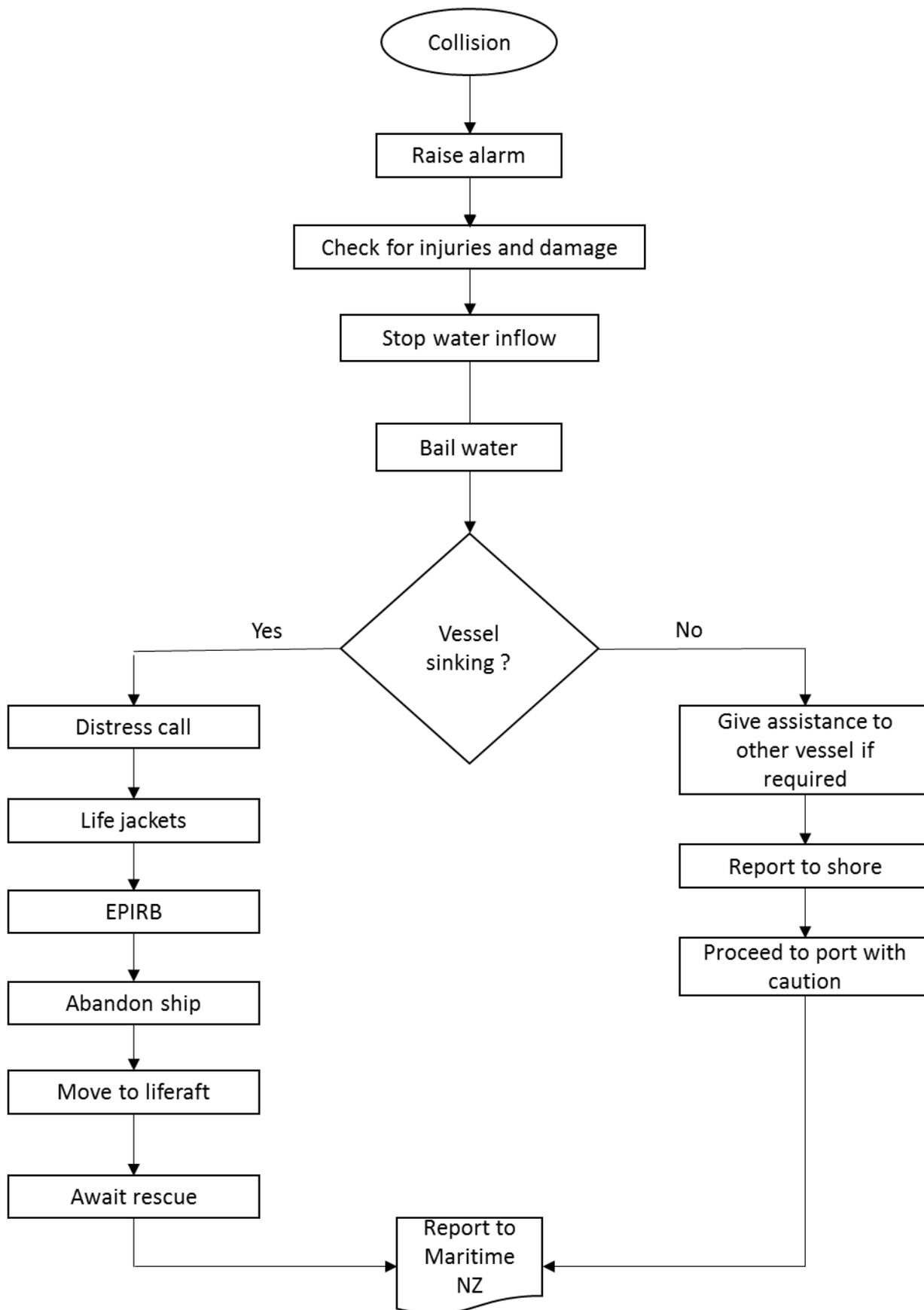
9.2 Fire



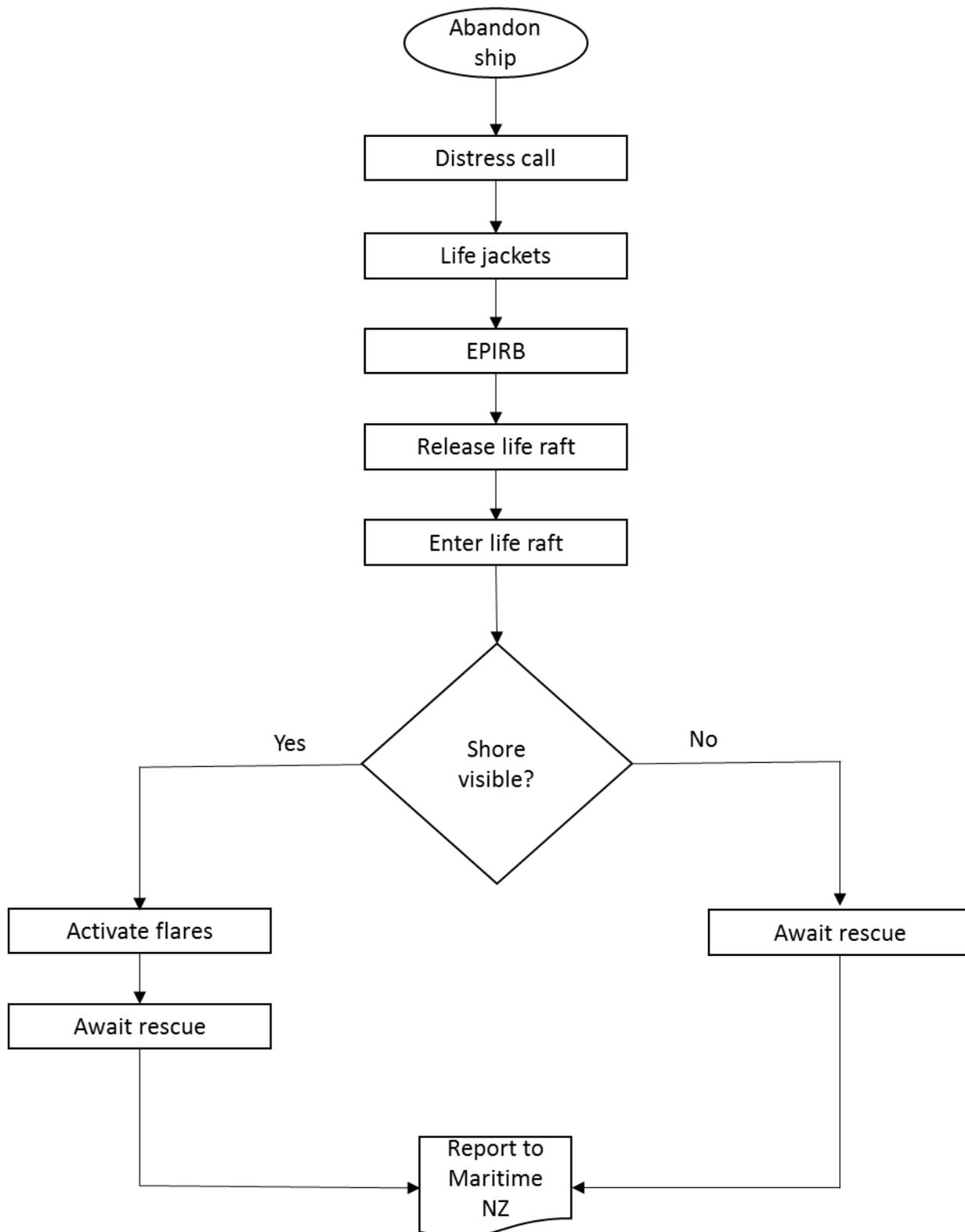
9.3 Person overboard



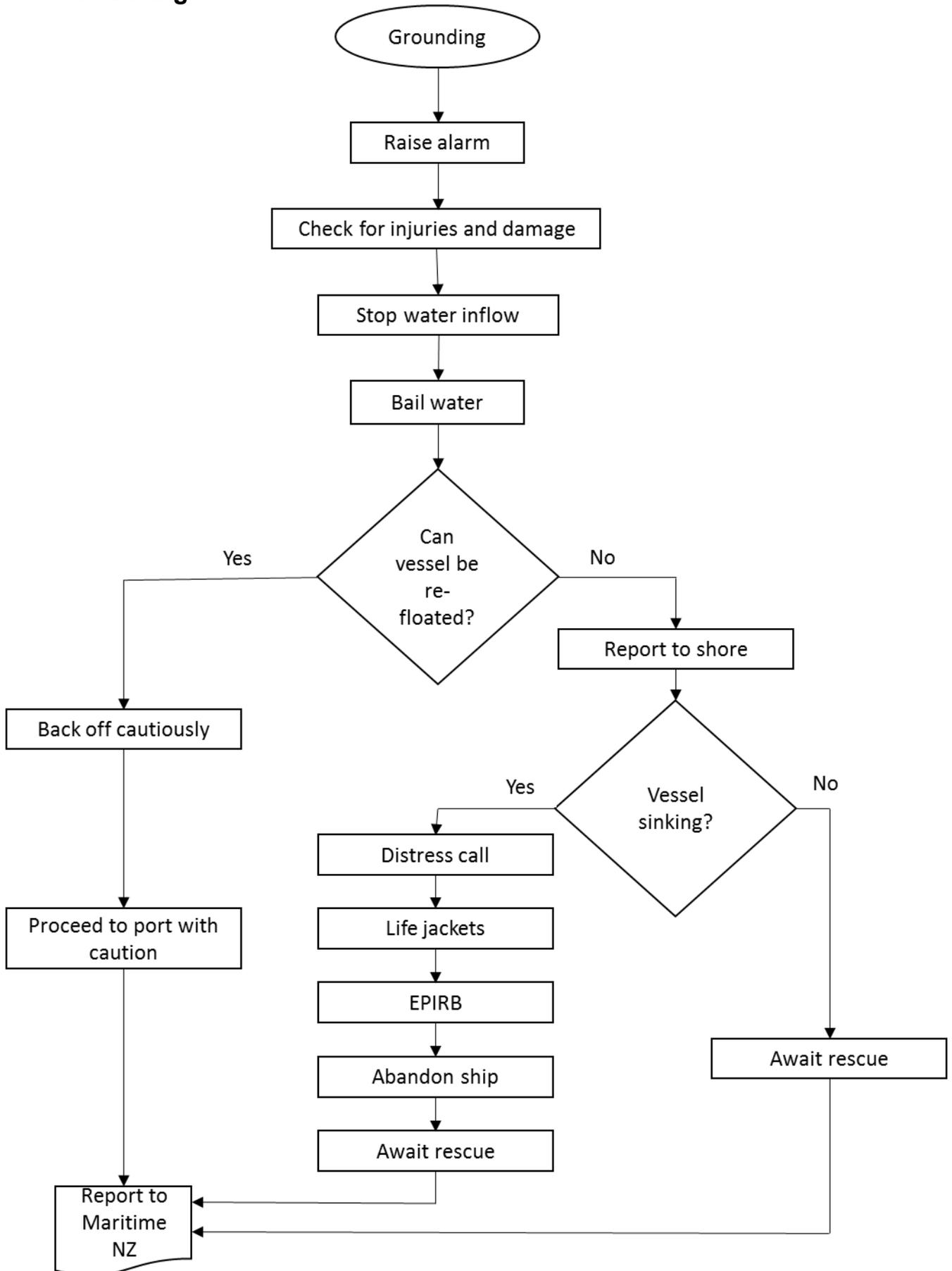
9.4 Collision



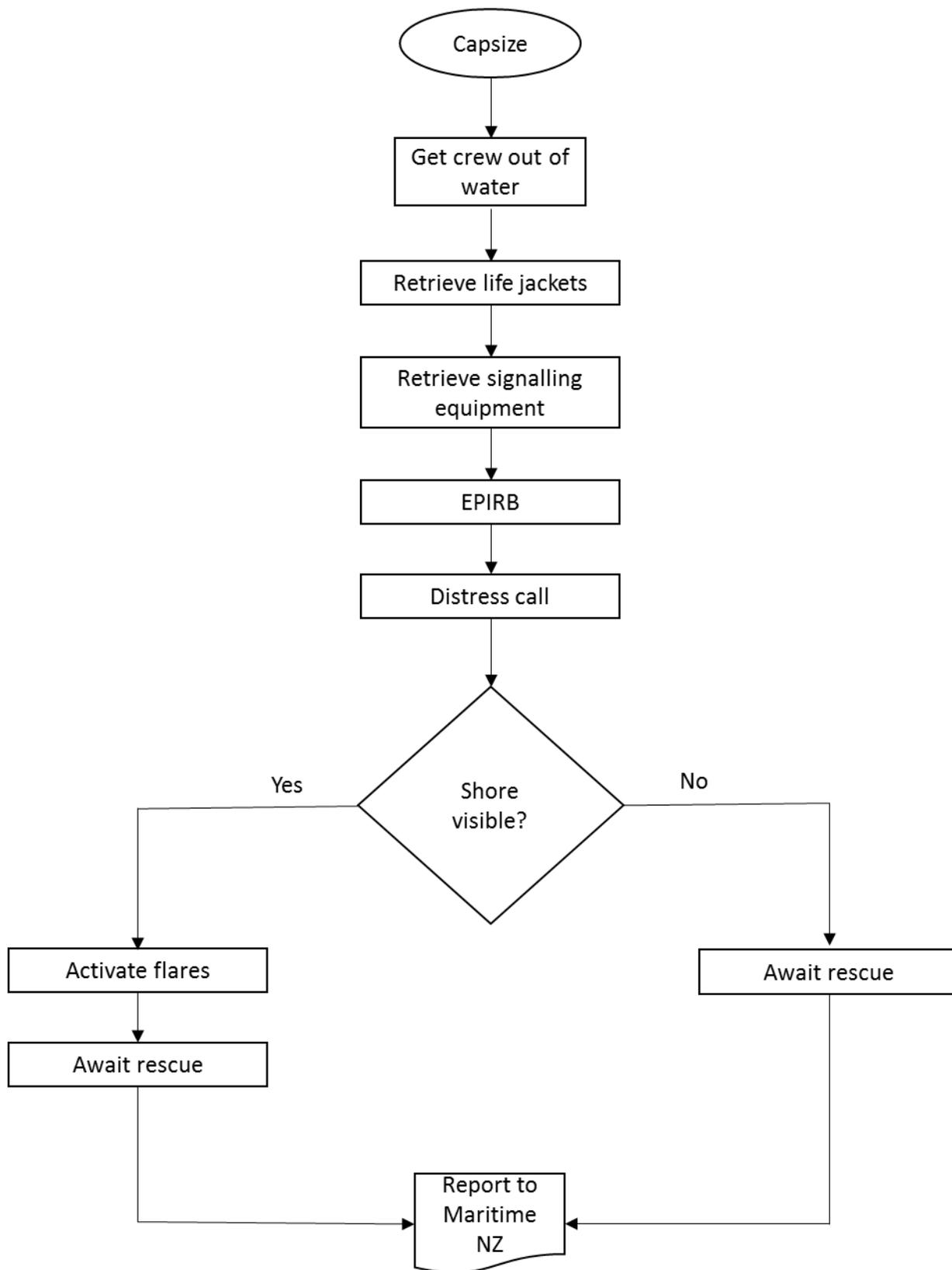
9.5 Abandon Ship



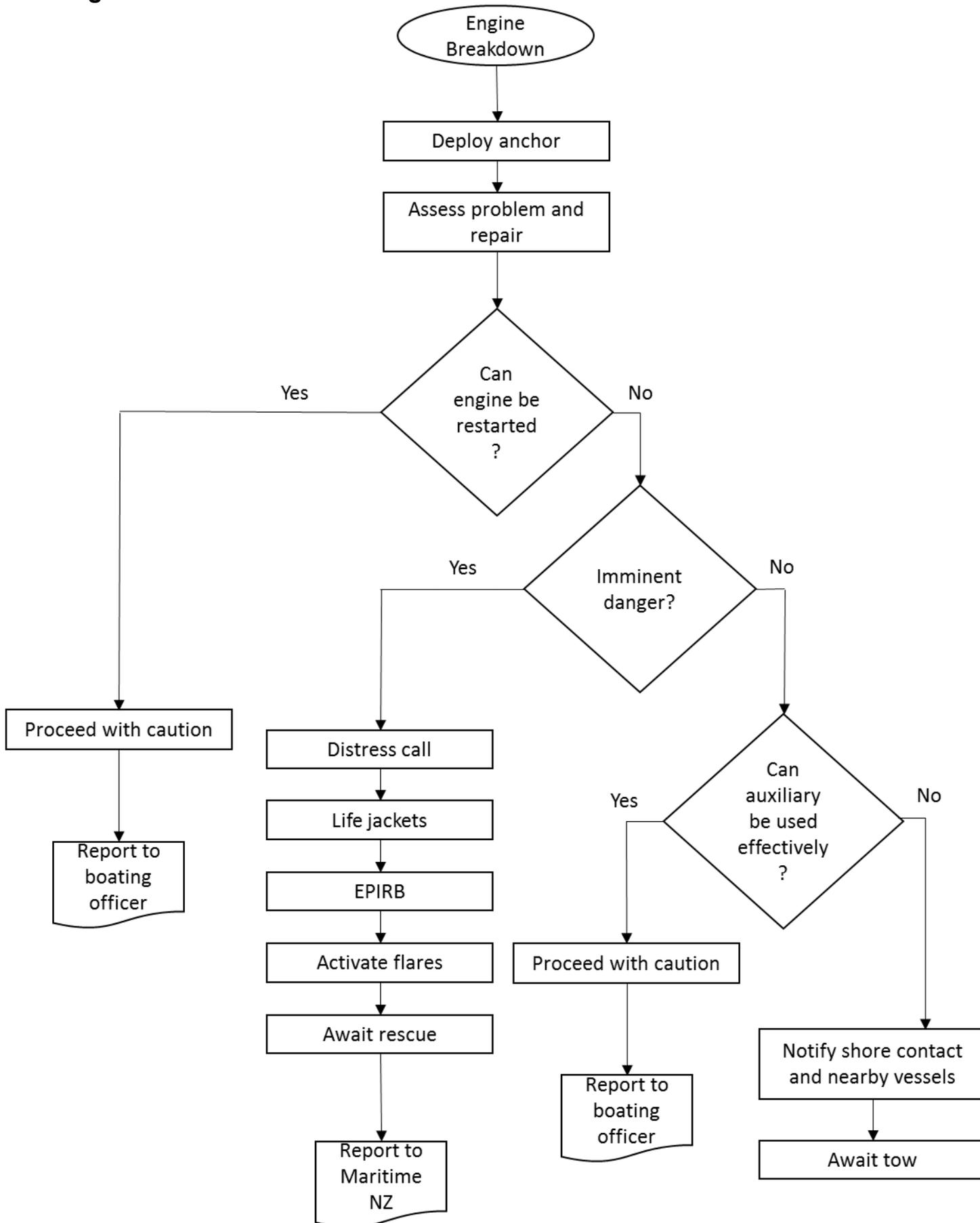
9.6 Grounding



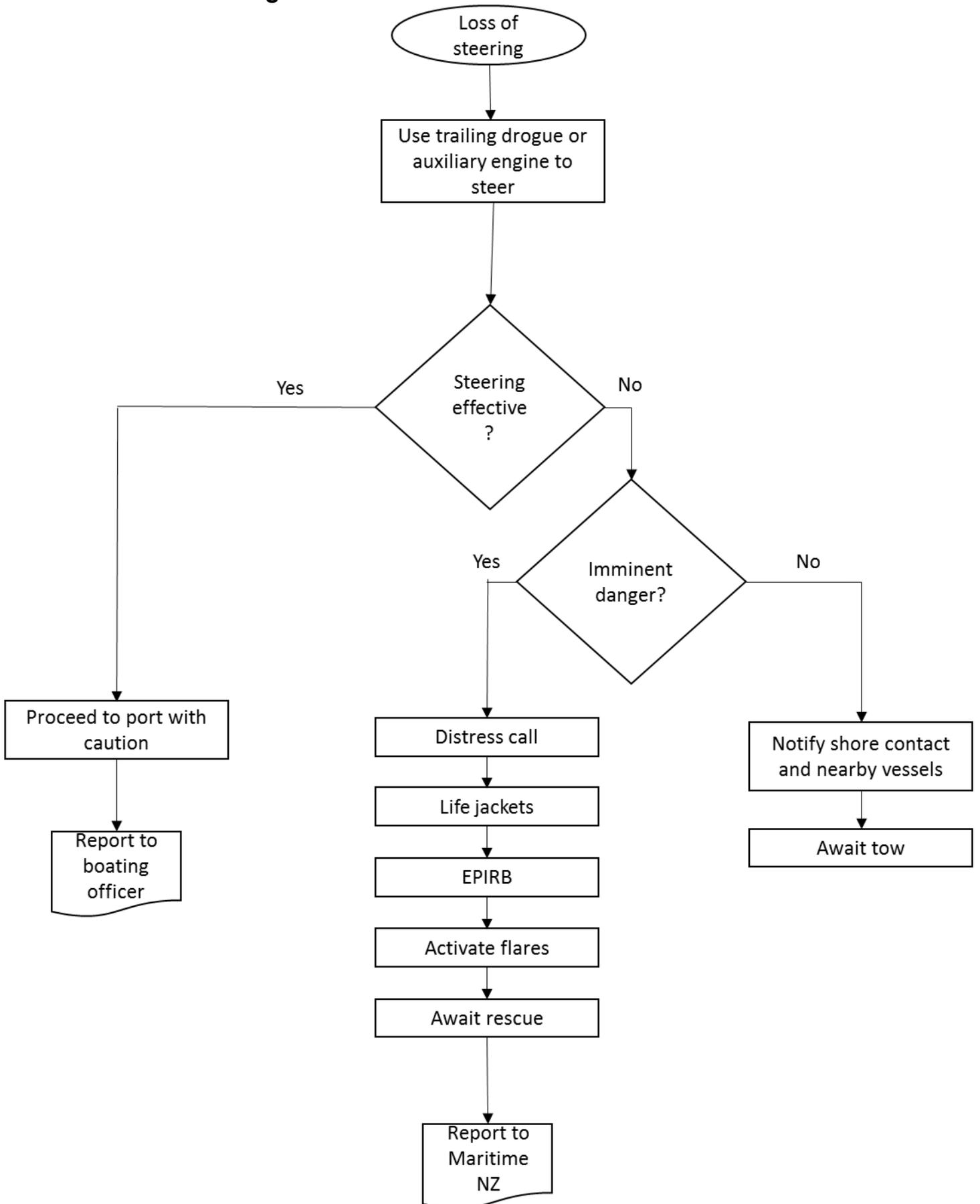
9.7 Capsize



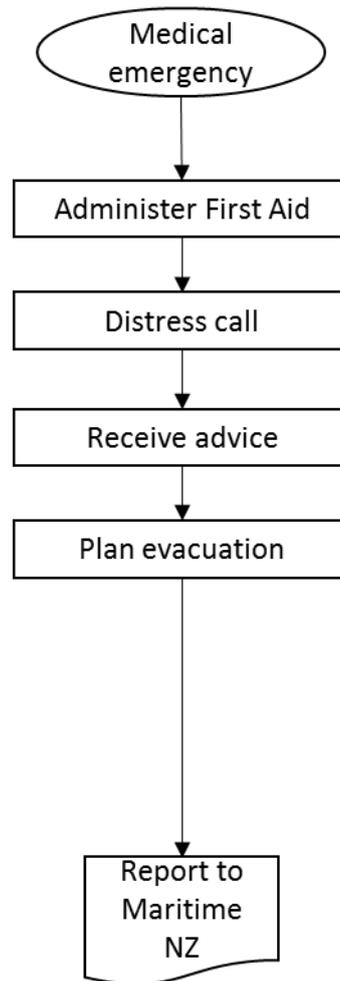
9.8 Engine Breakdown



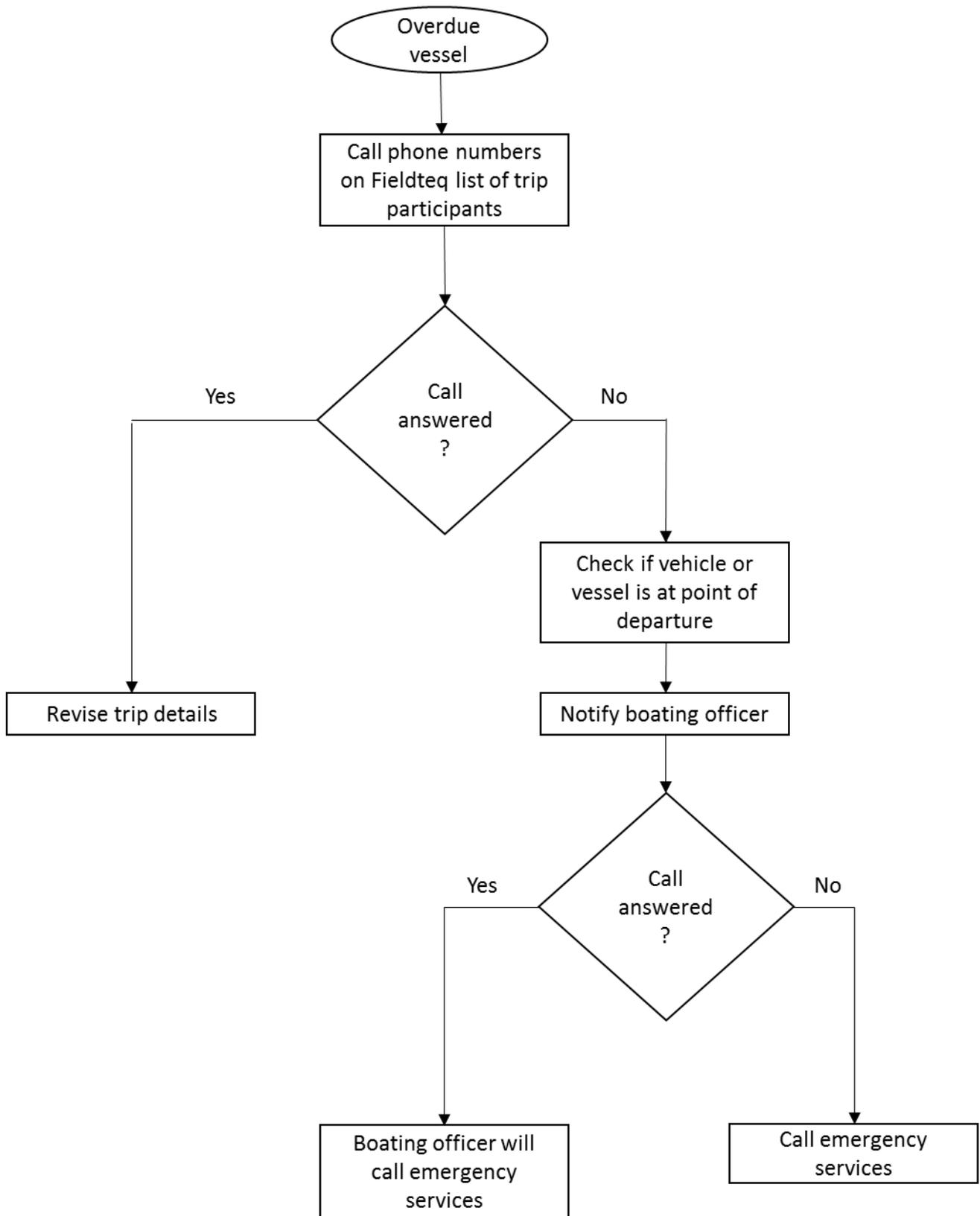
9.9 Loss of steering



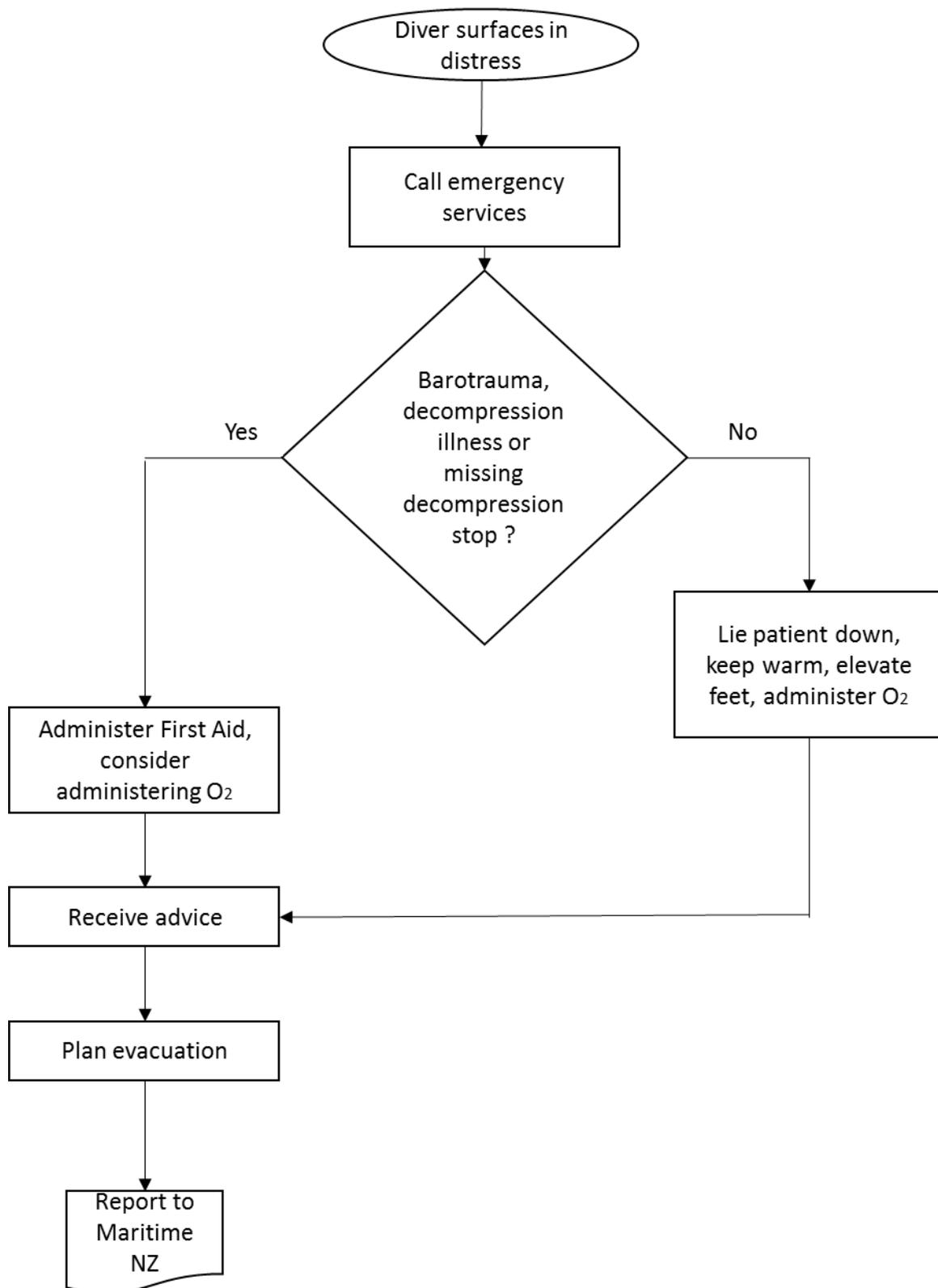
9.10 Medical emergency



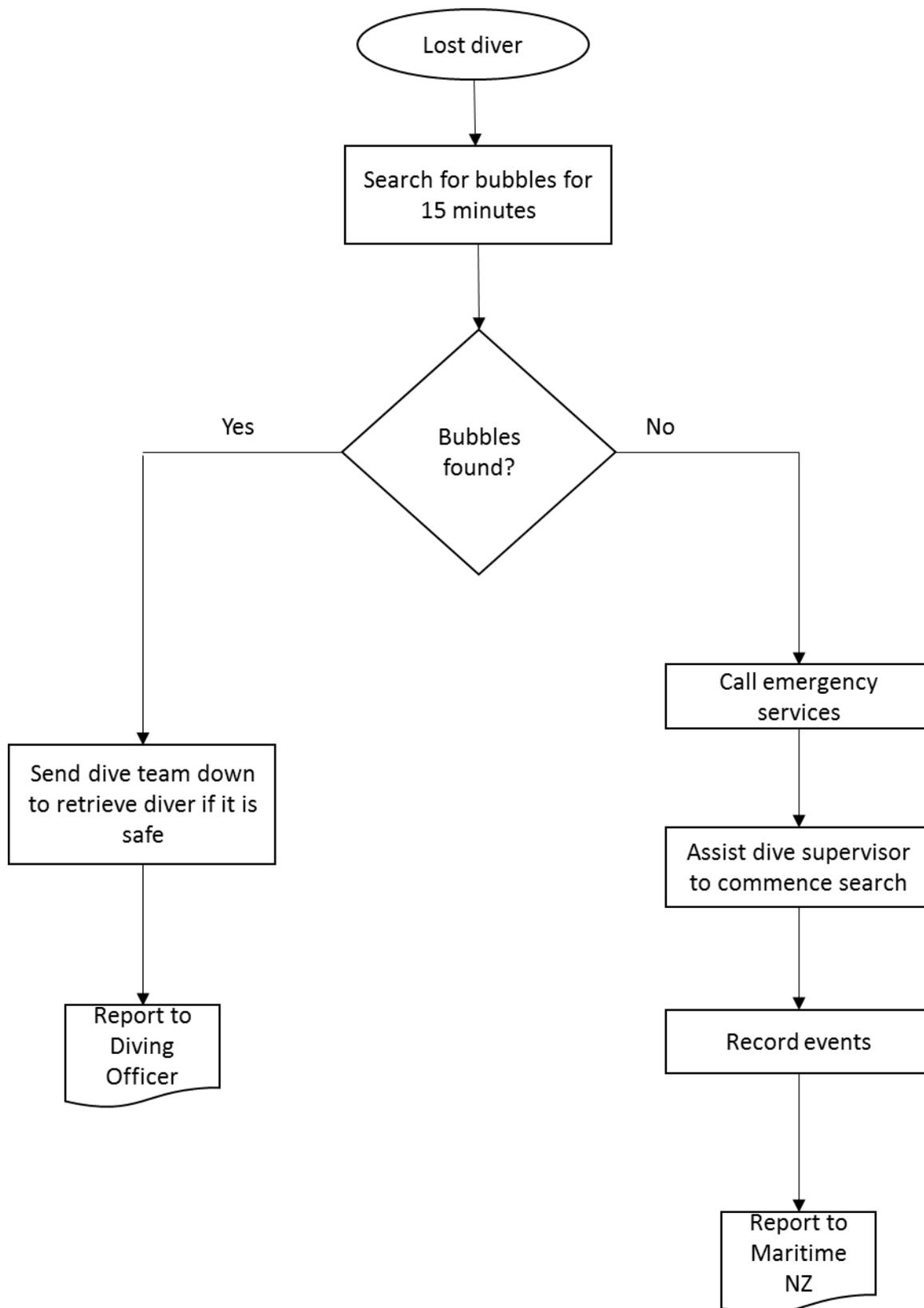
9.8 Overdue vessel



9.9 Diver surfaces in distress



9.10 Lost diver



10. Survey plan

This section contains the vessel's survey plan, based on the MNZ Survey plan template and covers the following:

1. Ship details
2. Scope of certification
3. Certificates and exemptions
4. Survey or inspection checklist
5. History of survey plan amendments
6. Survey items schedule
7. Survey plan approval

1. Ship details

| | |
|--|---|
| Full name of ship | <input type="text" value="Raukawa Challenger"/> |
| Name of operation | <input type="text" value="Victoria University of Wellington"/> |
| MNZ number | <input type="text" value="122256"/> |
| Call sign | <input type="text" value="ZMR7234"/> |
| Fishing number (if applicable) | <input type="text" value="901285"/> |
| Primary harbour | <input type="text" value="Wellington"/> |
| Hull construction | <input type="text" value="Aluminium"/> |
| Total engine power (in kW, as applicable) | <input type="text" value="180"/> |
| Drive type | <input type="text" value="One stern drive"/> |
| Length overall (LOA) | <input type="text" value="8.00"/> |
| Beam | <input type="text" value="2.60"/> |
| Draft | <input type="text" value="1.0"/> |
| Capacity of lifting equipment (if applicable) | <input type="text" value="Pot hauler 100kg, Stern gantry 500kg"/> |
| Carries dangerous goods | <input type="checkbox"/> <input checked="" type="checkbox"/> yes / no |
| Date of build | <input type="text"/> / <input type="text"/> / <input type="text" value="1997"/> DD / MM / YYYY |

2. Scope of Certification

| | | |
|-----------------------------------|---|--|
| Vessel categories | <input type="checkbox"/> Passenger ship | <input checked="" type="checkbox"/> Non-passenger ship |
| | <input checked="" type="checkbox"/> Fishing ship | <input type="checkbox"/> Sailing ship |
| Minimum crew | <input type="text" value="One"/> | |
| Maximum passengers | <input type="text" value="NA"/> | |
| Maximum persons | <input type="text" value="8"/> | |
| Maximum cargo load | <input type="text" value="NA"/> | |
| Activities engaged in | <input type="text" value="Research, diving fishing"/> | |
| Operating limits | <input type="text" value="Inshore - Wellington, Kapiti, Nelson/Marlborough"/> | |
| Special conditions or limitations | <input type="text" value="Nil"/> | |

3. Certificates and Exemptions

| Certificates and exemptions held or required for this ship | Certificate number | Expiry date (DD/MM/YYYY) |
|--|--------------------|-----------------------------|
| <input checked="" type="checkbox"/> Certificate of Survey (or Fit for Purpose Certificate and SSM Certificate) | | |
| <input type="checkbox"/> Load Line Certificate | | |
| <input type="checkbox"/> Freeboard Line Certificate | | |
| <input type="checkbox"/> International Tonnage Certificate | | |
| <input checked="" type="checkbox"/> Compass Certificate | | Swung 2014 |
| <input checked="" type="checkbox"/> Radio Certificate | | 2018 |

| Add other certificates and exemptions held or required for this ship | Certificate number | Expiry date (DD/MM/YYYY) |
|--|--------------------|-----------------------------|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

4. Survey or Inspection Checklist

| Survey or inspection type <small>(tick which applies)</small> | Expected frequency |
|---|--|
| <input checked="" type="checkbox"/> Out of water hull inspection | At initial survey, then at intervals prescribed in the survey performance requirements |
| <input checked="" type="checkbox"/> Steering and propulsion survey | At initial survey, then at intervals prescribed in the survey performance requirements |
| <input checked="" type="checkbox"/> Radio survey | At initial survey, then 4 year |
| <input checked="" type="checkbox"/> Compass Certificate | At initial survey, then at intervals prescribed in the |

5. History of Survey Plan Amendments

| Amendment date <small>(DD/MM/YYYY)</small> | Amendment description | Name of approving surveyor | Operator's signature |
|--|------------------------------|-----------------------------------|-----------------------------|
| NA | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

6. Survey Items Schedule

| Survey item groupings | Items to be surveyed | Timing of survey or inspection | | | | | |
|-----------------------|----------------------|--------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | | Calendar year | 2015 | 201 | 2020 | | |
| | | Age of vessel | 18 | 21 | 23 | | |
| Hull exterior | Inspect | | √ | √ | √ | <input type="checkbox"/> | <input type="checkbox"/> |
| | | | <input type="checkbox"/> |
| | | | <input type="checkbox"/> |
| Hull interior | Inspect | | √ | √ | √ | <input type="checkbox"/> | <input type="checkbox"/> |
| | | | <input type="checkbox"/> |
| | | | <input type="checkbox"/> |

| Survey item groupings | Items to be surveyed | Calendar year | Timing of survey or inspection | | | | |
|------------------------------------|----------------------|---------------|-------------------------------------|-------------------------------------|-------------------------------------|--------------------------|--------------------------|
| | | | 2015 | 201 | 2020 | | |
| | | | Age of vessel | 18 | 21 | 23 | |
| Decks and superstructure | Inspect | | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Fit out | Inspect fuel tank | | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Propulsion and steering mechanisms | Inspect | | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

| Survey item groupings | Items to be surveyed | Calendar year | Timing of survey or inspection | | | | |
|--|---|---------------|-------------------------------------|-------------------------------------|-------------------------------------|--------------------------|--------------------------|
| | | | 2015 | 201 | 2020 | | |
| | | | 18 | 21 | 23 | | |
| Auxiliary systems and machinery | Check bilge system | | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Safety (including navigation and communications) equipment | Check EPIRB, flares, fire extinguishers | | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

7. Survey Plan Approval

Name of recognised surveyor

Signature of surveyor

Date plan approved
DD / MM / YYYY

11. Maintenance plan

11.1 Maintenance policy

Victoria University will ensure that all of its vessels are fit for purpose and hold a current Certificate of Survey at all times during any operations.

Maintenance details are kept in the technician's office.

11.2 Monthly checks and routine maintenance

| Equipment or item details | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Initials and date | | | | | | | | | | | | |
| Engine checks | | | | | | | | | | | | |
| Check engine flexible hoses | | | | | | | | | | | | |
| Check fuel lines | | | | | | | | | | | | |
| Check engine oil | | | | | | | | | | | | |
| Check engine belt tension | | | | | | | | | | | | |
| Check hydraulic oil level | | | | | | | | | | | | |
| Check steering oil level | | | | | | | | | | | | |
| Check for oil leaks | | | | | | | | | | | | |
| Check coolant level | | | | | | | | | | | | |
| Check bilge for fluids | | | | | | | | | | | | |
| Clean bilge strainer | | | | | | | | | | | | |
| Boat checks | | | | | | | | | | | | |
| Grease steering gear and pot hauler | | | | | | | | | | | | |
| Check pot hauler block, shackles and gantry shackles | | | | | | | | | | | | |
| Check mooring ropes | | | | | | | | | | | | |
| Check bilge pump and alarm | | | | | | | | | | | | |
| Check for water in port and starboard hulls | | | | | | | | | | | | |
| Check scupper operation | | | | | | | | | | | | |
| Check and clean navigation lights | | | | | | | | | | | | |
| Check life buoy light | | | | | | | | | | | | |
| Clean radio aerial and check signal strength | | | | | | | | | | | | |

11.3 Annual checks and routine maintenance

| Equipment or item details | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|------|------|------|------|------|------|------|
| Initials and date | | | | | | | |
| Slip vessel and examine hull | | | | | | | |
| Renew anodes | | | | | | | |
| Update charts with corrections | | | | | | | |
| Service engine | | | | | | | |
| Service bilge pump as required | | | | | | | |
| Service stern leg and propellers | | | | | | | |
| Check anchor warp and renew/reverse as required | | | | | | | |
| Service auxiliary engine as required (two yearly) | | | | | | | |
| Check condition of life jackets and replace light batteries | | | | | | | |
| Replace life buoy battery | | | | | | | |

12. Spare parts list

| Spare parts needed | Location on board |
|---------------------------|----------------------------|
| | |
| Fuses | Plastic box behind console |
| Navigation Light Bulbs | Plastic box behind console |
| Hose clamps | Under seat |
| Cable ties | Under seat |
| Fuel filter | Under seat |
| Drive belts | Under seat |
| Electrical tape | Plastic box behind console |
| Assorted Tools | Under seat |

Appendix 1 Safety Briefing for new crew

No equipment is to be operated without the knowledge of the Skipper and no one is to leave the vessel to enter the water without the knowledge of the skipper. In the case of an Emergency follow the directions of the Skipper.

- Life jackets are stowed under the cabin seats. There are sufficient life jackets for everyone on board. Life jackets have a whistle and a light. Demonstrate how to put one on.
- The life raft is located on the cabin roof and has a manual release and a hydrostatic release. Demonstrate release.
- Life Rings. If a person falls overboard, **shout, throw and point**. There are two life rings outside, under the cabin roof. One life ring is fitted with a floating light the other has a long rope.
- Flares. There are two smoke flares for daytime use and four parachute flares for night use in the yellow plastic container on the floor in the cabin. To activate parachute flares, unscrew cap and pull ball, point away from vessel. Only deploy flares if someone can see you.
- VHF Radio.
 - Press the switch on the side of the handset to transmit.
 - Use channel 16
 - Instructions for MAYDAY call on front of instrument panel.
- Fire extinguishers – Foam and dry powder extinguishers inside the cabin. CO₂ extinguisher just outside the cabin door. In the event of an engine fire, there is a flap on the engine box to close off the air supply to the engine, and an opening on the starboard side of the engine box for the CO₂ fire extinguisher.
- EPRIB (Emergency Position Radio Indicator Beacon). Manual and hydrostatic activation. Demonstrate manual activation.
- First Aid and Oxygen kits. The first aid kit and oxygen kits are on the floor in the cabin.
- Throwing quoit. Attached to grab handle
- Beware of slippery decks
- Fingers and body inside vessel
- Follow the instructions of the skipper at all times

Emergency contact details for crew not registered in Fieldteq must be recorded in the Day Plan

Appendix 2 Skipper Induction Checklist

All Raukawa Challenger skippers must complete this process.

| Please circle the appropriate word and initial in the space provided | Yes/No | Initials |
|--|--|----------|
| Do you have any medical condition that may cause safety concerns or prevent you from doing certain tasks or increase the likelihood of a medical incident? If yes, please indicate what the medical condition is: _____ | Yes/No | _____ |
| Are you taking any medication that may cause safety concerns or increase the likelihood of a medical incident? If yes, please indicate what the medication is: _____ | Yes/No | _____ |
| I acknowledge that I have read and understood the Maritime Transport Operator Plan and am familiar with the following sections: <ul style="list-style-type: none"> • Maritime transport operator details • Roles of responsible persons • Control of information and documents • Health and safety • Crew familiarisation and training • Environmental policy • Vessel details • Safe operating procedures • Emergency procedures • Hazards of the operation | Yes/No Yes/No Yes/No Yes/No Yes/No Yes/No Yes/No Yes/No Yes/No Yes/No | _____ |
| I acknowledge that I have been shown and am familiar with how the vessel handles when at sea. | Yes/No | _____ |
| I acknowledge that I have been shown and am familiar with how to use all navigational and safety equipment on board the vessel. | Yes/No | _____ |
| I acknowledge that I have been briefed on the emergency procedures in place aboard the vessel and instructed in my role in the event of an emergency. | Yes/No | _____ |
| I acknowledge that I have been briefed on the safe operating procedures in place aboard the vessel and instructed in my role in carrying out these procedures. | Yes/No | _____ |
| I acknowledge that I am responsible for leading and instructing the crew. | Yes/No | _____ |

I acknowledge that I have been briefed on hazards and safety procedures as outlined above, and that I have read and understood all safety information and instructions supplied to me as part of this induction process. I am prepared to meet my obligations and responsibilities under the Maritime Operator Safety System and the Health and Safety in Employment Act.

Name of new Skipper _____

New Skipper's signature _____

Date _____

Senior Skipper's name _____

Senior Skipper's signature _____ Date _____

Appendix 3 Crew Induction Checklist

All Raukawa Challenger crew must complete this process.

| Please circle the appropriate word and initial in the space provided. | Yes/No | Initials |
|---|--------|----------|
| Do you have any medical condition that may cause safety concerns or prevent you from doing certain tasks or increase the likelihood of a medical incident? If yes, please indicate what the medical condition is: _____ | Yes/No | _____ |
| Are you taking any medication that may cause safety concerns or increase the likelihood of a medical incident? If yes, please indicate what the medication is: _____ | Yes/No | _____ |
| I acknowledge that I have read and understood all hazard notices and warnings posted on the vessel. | Yes/No | _____ |
| I acknowledge that I have been shown the vessel's hazard register and been advised of the hazard management process aboard the vessel. | Yes/No | _____ |
| I acknowledge that I have been given a safety tour of the vessel and shown the location of the emergency equipment. | Yes/No | _____ |
| I acknowledge that I have been briefed on the emergency procedures in place aboard the vessel and instructed in my role in the event of an emergency. | Yes/No | _____ |
| I acknowledge that I have been briefed on the safe operating procedures in place aboard the vessel and instructed in my role in carrying out these procedures. | Yes/No | _____ |
| I acknowledge that I am prepared to follow all lawful instructions of the skipper. | Yes/No | _____ |

I acknowledge that I have been briefed on hazards and safety procedures as outlined above, and that I have read and understood all safety information and instructions supplied to me as part of this induction process. I am prepared to meet my obligations and responsibilities under the Maritime Operator Safety System and the Health and Safety in Employment Act.

Name of crew _____

Crew's signature _____ Date _____

Skipper's name _____

Skipper's signature _____ Date _____

Appendix 6 Standing orders for skippers

I,..... agree:

1. To keep a proper lookout at all times.
2. To maintain overall responsibility for the safety of the vessel and crew at all times.
3. To monitor the welfare of the crew at all times.
4. To stand down if not feeling well enough to operate the vessel.
4. To ensure that the vessel is ready for the next user and any deficiencies are reported to the VUCEL Boating Officer immediately. Deficiencies must also be recorded in the log book and, if necessary, the vessel must be rendered inoperable.
5. To remain aboard at all times unless tied to a jetty, permanent structure or certified mooring system.
6. To ensure the conditions and operation suit the ability of the crew.
7. To obtain up to date weather forecasts before and during the voyage to ensure that conditions are suitable for the vessel and crew.
8. To ensure that all operating practices are in accordance with maritime law and regional bylaws and that good seamanship practises are observed at all times.
9. To follow the operating procedures outlined in the Marine Transport Operator Plan on board the vessel.
10. To act in a way that represents Victoria University's ecological values.
11. To use the vessel for purposes sanctioned by Victoria University only.
12. To ensure that the log book is filled out accurately.
13. To ensure that active crew only are permitted on board the vessel (no passengers allowed).

Skipper's Signature.....Date.....

Appendix 7 Training exercises

Insert date of exercise and initials of participants

| Exercise | 2015 | | 2016 | | 2017 | | 2018 | |
|-------------------|---------|---------|---------|---------|---------|---------|---------|---------|
| | Jan-Jun | Jul-Dec | Jan-Jun | Jul-Dec | Jan-Jun | Jul-Dec | Jan-Jun | Jul-Dec |
| Person Overboard | | | | | | | | |
| Fire | | | | | | | | |
| Abandon Ship | | | | | | | | |
| Pollution | | | | | | | | |
| Collision | | | | | | | | |
| Grounding | | | | | | | | |
| Capsize | | | | | | | | |
| Medical Emergency | | | | | | | | |

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Appendix 12 Current Vessel Certificates

12.1 Radio Certificate

| Radio Installation Inspection Report | | | Roger Kempthorne | | |
|---|--------------------------------------|---|-------------------------------------|--|-------|
| Ships Name <i>Raukawa Challenger</i> | Call sign <i>ZMR7234</i> | Date <i>28/3/14</i> | Location <i>Seaview</i> | | |
| MSA No. <i>122256</i> | | Ships limits | Applicable Rules <i>40 A/C/D</i> | | |
| Operators name and qualification <i>John Van der Simen</i> | | Complies Yes/No <i>RRTOC</i> <i>GRTOC</i> <i>GOC</i> <i>GOC with GMDSS</i> | | | |
| <i>Victoria University</i> <i>396 The esplanade</i> <i>Island Bay Wellington</i> | | | | | |
| Radio station check list | | | | Complies Yes/No | |
| Callsign and ships name displayed - by radio installation | <input checked="" type="checkbox"/> | Distress notice displayed-visible from radio station | <input checked="" type="checkbox"/> | Clock - visible from radio station <input checked="" type="checkbox"/> | |
| Equipment securely mounted and protected | <input checked="" type="checkbox"/> | Wiring and cable inspected where sighted | <input checked="" type="checkbox"/> | Emergency lighting (torch under 24m) at radio station <input checked="" type="checkbox"/> | |
| Voltmeters provided showing level of charge / discharge on radio Battery (state & rate) | <input checked="" type="checkbox"/> | Battery secure / protected and terminals and leads inspected Of adequate capability | <input checked="" type="checkbox"/> | MF/HF Radio Station Licence current | |
| Alarm Generating device (MF&HF) tested (ASGD) | | MSA Radio Handbook for Coastal Vessels on board | | | |
| VHF Radiotelephone Installation Equipment Make, Model and serial numbers | | | | Complies Yes/No | |
| <i>icom</i> | | | | | |
| Aerial type & height | Aerial plan | Aerial load check - load adequate | SWR check | | |
| <i>Whip</i> | <i>—</i> | <i>16 W</i> | <i>1.2</i> | | |
| VHF Transmission test | | Circle transmission test channel, tested at | | hrs Acceptable Yes/No | |
| Ch 01 | Ch 6 | Ch 16 | Ch 67 | Ch 68 | Ch 71 |
| Frequency check | | <i>Ch 6 (156.3)</i> <i>Ch 16 (156.8)</i> | | <i>+</i> (1%) 10hz Acceptable Yes/No | |
| Supply of Electrical energy | | | | Complies Yes/No | |
| Main source (Main eng/alternator) | <i>12V</i> | Location | <i>W/M</i> | Capacity Amps | |
| Reserve source (12 / 24 volt) | <i>12V</i> | Location | <i>ENG/ME</i> | Capacity AHC | |
| Visual inspection | | High discharge test | | Voltage | |
| EPIRB inspection | | | | Complies Yes/No | |
| Make / Model / Serial number | Battery expiry date | Location, Equipment mounting and protection | Visual and battery test | | |
| <i>ACR</i> | <i>7/16</i> HRU (406) expiry date | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | | |

Remarks / Non-Conformances

.....

..... Non-Conformances completed
 on..... signed..... (fax/post to office)

I declare that on..... the radio equipment has been inspected and complied in all respects with the requirements of Maritime Rule Part 40A, C or D and Part 43 where applicable.

Inspected by..... *R. Kempthorne* Radio Inspector Surveyor

Signature..... *R. Kempthorne*

12.2 Compass Certificate



MAGNETIC COMPASS DEVIATION TABLE STANDARD / STEERING COMPASS

Unless as appropriate

SHIP NAME RUAKAWA CHALLENGER OFFICIAL No 122256
 LOCALITY Wellington DATE 20 March 2014

| Ship Head | Dev | - West | | | | | + East | | | | | |
|-----------|------------|--------|---|---|---|---|--------|---|---|---|--|--|
| | | 4 | 3 | 2 | 1 | 0 | 1 | 2 | 3 | 4 | | |
| 000 | | | | | | | | | | | | |
| 045 | | | | | | | | | | | | |
| 090 | | | | | | | | | | | | |
| 135 | | | | | | | | | | | | |
| 180 | <i>Nil</i> | | | | | | | | | | | |
| 225 | | | | | | | | | | | | |
| 270 | | | | | | | | | | | | |
| 315 | | | | | | | | | | | | |
| 360 | | | | | | | | | | | | |

| Position of Correctors | | | |
|--|-----|-----------|----------|
| <i>Distance from Centre of Compass Card. All measurements in millimetres</i> | | | |
| | No | Size | Distance |
| Fore & Aft | 1 | Variable | |
| Red End F A | | adjusting | |
| Athwart | 1 | Variable | |
| Red End P S | | adjusting | |
| Heeling | | | |
| Red End U D | Nil | | |
| Quadrantal | Nil | | |
| Flinders Bar F A | Nil | | |

| Compass | | |
|---------|------|------|
| Make | Type | Size |
| RASIMO | Dome | 100 |

Alterations/Remarks Altered F & A correctors

I certify that the above Deviation Table was correct and that the compass was in good order and condition at the time of adjustment in accordance with NZ Marine Rule 45.
 I have inspected the compass error book* and device for taking bearings.*
*delete if applicable

Name Capt J A Brown Signed [Signature]
john@johnbrown.co.nz 027 602 7654 Licensed Compass Adjuster

Stamp of New Zealand
Compass Adjusters Association

12.3 Life raft certificate



No. WN 1433

RFD New Zealand Limited
 3B, 33 KAWHARAWHARA ROAD, WELLINGTON. PH (04) 499 9179
CERTIFICATE OF RE-INSPECTION

This is to certify that the life raft detailed below has been surveyed, controlled and tested in compliance with requirements of

MSA and the manufacturer and in accordance with IMO Resolution

Inflatable Liferaft

| | | | | |
|----------------|----------------|--------------------|---------------------|----------------------|
| Identification | Type: | Capacity: | Serial No.: | Date of manufacture: |
| | PACIFIC | 8 | W0043 | 1998 |
| | Fabric type: | Length of painter: | Max stowage height: | |
| | PVC | 10.7 METRS | 6 METRS | |

| | | | | |
|------------|--------------|-----------------|-----------------|--------------------|
| Cylinders: | Serial No.: | Contents CO2: | Contents N2: | Latest hydro test: |
| | 93386 | 2.800 KG | 0.180 KG | 06/2011 |
| | | | | |
| | | | | |

| | | | | |
|-----------------|-------|---------------|-------------|--------------|
| Equipment: | Unit: | Type: | Serial No.: | Expiry date: |
| Emergency pack | | MSANZC | | |
| ☐ PDRB | | N/A | | |
| HRI test | | N/A | | |
| Radar reflector | | N/A | | |
| First aid kit | | N/A | | |

| | | | | |
|--------|-------------------|--------------------|-------------------|----------------------------|
| Tests: | NAI test | Gas inflation test | Flour seam test: | Load test, davit-launched. |
| | Yes/no: No | Yes/no: No | Yes/no: No | Yes/no: N/A |
| | Latest test*: | Latest test*: | Latest test*: | Latest test*: |

| | | | |
|-----------|---------------------|-------------------------------|----------------------|
| Ver/Latam | Date of inspection: | Service station name and No: | Date issued to ship: |
| | 19 MAY 2015 | SURVITEC GROUP (50343) | 19 MAY 2015 |

| | |
|----------------------------------|----------------------------------|
| National Marine Authority ID No: | Remarks / modification |
| N.Z. 124 | ANNUAL SURVEY CARRIED OUT |

This inflatable liferaft requires servicing 12 months from the latest inspection date in accordance with the SOLAS regulation.

Flagstate of ship: NEW ZEALAND

IMO No:

International call signal:

Name of ship / owner: **RAUKAWA CHALLENGER
 VICTORIA UNIVERSITY**

NATHAN SPENCER
 For authorized servicing stations (printed name)

 Signature

Only authorized and approved servicing stations are to be used - A list of World Wide Service Stations may be obtained from RFD Limited.

RFD 10-07A

12.4 EPIRB certificate

TEL + 64 4 577 8034 FAX + 64 4 577 8041 www.beacons.org.nz www.maritimenz.govt.nz
 Avalon Business Centre, Percy Cameron Street, PO Box 30050, Lower Hutt 5040, New Zealand



In all correspondence please quote your beacon reference Nr: **77188**

Beacon Hex Id / UIN: **400C7BA51EFFBFF**

Owner Name: **Victoria University of Wellington**

Owner Address: 396 The Esplanade, Island Bay
 Wellington 6023
 New Zealand

Type: EPIRB Make: GME Model: MT600G Serial Nr: 1602449718

Battery Expiry: February 2027

None

Comments:

| | | | |
|----------------|--|-----------------------------------|---------------------------|
| Ship/Vessel | Name RAUKAWA CHALLENGER; Radio Callsign ZMR7234; MMSI ; MSA Number MNZ122256; Dwt 3.65; Length 8.5; Home Port Wellington; Type Tri Hull; Nr of Crew ; Nr of Passengers 11; Types of radio ; Number of Lifeboats 0; Number of Masts 0; Official Registration Number | | |
| Administrative | Home telephone | Victoria University of Wellington | (04) 568 2729 |
| Administrative | Work telephone | Victoria University of Wellington | (04) 4709250 |
| Administrative | Mobile | Victoria University of Wellington | 027 534 8377 |
| Administrative | Email | Victoria University of Wellington | john.vandersman@vuw.ac.nz |
| Distress | Home telephone | John van der Sman | (04) 568 2729 |
| Distress | Work telephone | John van der Sman | (04) 470 9250 |
| Distress | Mobile | John van der Sman | 027 534 8377 |
| Distress | Home telephone | Daniel McNaughtan | (04) 971 5311 |
| Distress | Work telephone | Daniel McNaughtan | (04) 470 9257 |
| Distress | Mobile | Daniel McNaughtan | 021 684 704 |
| Distress | Home telephone | Jeff Shima | (04) 475 7311 |
| Distress | Work telephone | Jeff Shima | (04) 470 9251 |
| Distress | Mobile | Jeff Shima | 027 563 5475 |
| Distress | VHF | Raukawa Challenger | ZMR7234 |

Printed 10:26:04a.m. 11/07/2016

12.5 Certificate of Survey



Surveys - Plan Approval - Stability - Loadline - Tonnage

ABLE SHIPS LTD SURVEYORS and NAVAL ARCHITECTS - Recognized by MNZ

New Zealand Certificate of Survey

Issued under the provisions of Maritime Rule MR44.41 and MR44.42

Ship details

| | | | |
|--------------------------|--------------------|----------------------|--------|
| Name of ship | RAUKAWA CHALLENGER | MNZ number | 122256 |
| Primary port | WELLINGTON | Port of registry | NA |
| Total engine power (kW) | 178 | No of drives | ONE |
| Length overall (m) | 8.0 | Length (m) MR 47, 48 | NA |
| Beam | 2.6 | Gross tonnage | NA |
| Ship registration number | NA | | |

Scope of certification

| | |
|------------|-----------------------------------|
| Categories | PASSENGER, NON PASSENGER, FISHING |
| Activities | RESEARCH FISHING AND DIVING |

Operational limits

This ship must not proceed beyond the following operating limits:

| Operating Limit | Category | Operating area / Descriptor | Max Pass | Min Crew | Max Persons |
|-----------------|----------|--|----------|----------|-------------|
| EW | P | WELLINGTON, PORIRUA, NELSON, PICTON, LAKE WAIRARAPA. TRIPS TO BE UNDER 30 MINUTES | 10 | 1 | 11 |
| INSHORE FISHING | F | AS DEFINED IN RULE 20.2. | | 1 | 8 |
| INSHORE | NP | WELLINGTON, KAPITI, NELSON/MALBOROUGH. | | 1 | 8 |
| RI | NP | INSIDE A STRAIGHT LINE COMMENCING AT TURAKIRAE HEAD FROM THERE 205° FOR 3 MILES FROM THERE TO FOLLOW THE COAST WITHIN A DISTANCE OF 3 MILES TO A POINT 3 MILES FROM CAPE PALLISER AND THEN 0° TO CAPE PALLISER | | 1 | 8 |
| | | | | | |

THIS IS TO CERTIFY that the vessel meets the requirements of MR44.41 in all respect for the issuance of a Certificate of Survey and meets all applicable Maritime and Marine Protection Rules. The Ship and its equipment remain sound and serviceable and fit for their intended use but subject to any conditions or restrictions listed on the reverse of this certificate.

This certificate has NIL (number) conditions.

Version 17 July 2014

ADMIN OFFICE: Able Ships Ltd, PO Box 8, Upper Moutere, 7144 Ph 03 543 2024 admin@ableships.co.nz
AKAROA OFFICE: Harry Stronach, PO Box 81, Akaroa 7542 Ph 03 304 8780 harry@ableships.co.nz



Surveys - Plan Approval - Stability - Loadline - Tonnage

ABLE SHIPS LTD SURVEYORS and NAVAL ARCHITECTS - Recognized by MNZ

This certificate is only valid if the conditions of MR19.64 are met.

| | | | |
|----------------------------------|-------------------|-----------------------|-----------------|
| Survey Certificate Number | 878-15 | Date of issue | 26 OCTOBER 2015 |
| Date of survey | 16 SEPTEMBER 2015 | Date of expiry | 26 OCTOBER 2020 |

Signature of surveyor *A. Coleman*

Name of surveyor ALISTAIR COLEMAN Marine Surveyor number SRV 010 ____

**New Zealand Certificate of Survey
Conditions and Limitations**

Expiry dates of other certificates required for this Certificate of Survey

Radio survey MAR 2017

Issued Subject to Maritime Rule MR44.41 / MR44.42

| | | | |
|---------------------------|-----------------------|----------------|-------------------|
| Name of ship | RAUKAWA CHALLENGER | MNZ number | 122256 |
| Survey certificate number | 878-15 | Date of survey | 16 SEPTEMBER 2015 |

This certificate of survey is issued subject to the following conditions and limitations. A completion date is required for each entry.

Version 17 July
2014

ADMIN OFFICE: Able Ships Ltd, PO Box 8, Upper Moutere, 7144 Ph 03 543 2024 admin@ableships.co.nz
AKAROA OFFICE: Harry Stronach, PO Box 81, Akaroa 7542 Ph 03 304 8780 harry@ableships.co.nz