"SCHEDULE 2"

BULLER
DISTRICT COUNCIL
Te Kaunihera O Kawatiri

WESTPORT HARBOUR INFORMATION PACK

This Information Pack becomes part of your vessel's Safety Management System (SMS) Documents. Each skipper and mate must be aware of the contents.

CONTENTS

1.0 MARINE NOTICES (Please note the following notice issued by MNZ does NOT supersede the requirements of the Buller District Council Westport Harbour Navigation and Safety Bylaws)

1.1 Marine Notice Boats 10/2001 November - National Code of Practice

This code addresses widespread concerns over fatalities, mainly to the crew of fishing vessels, on bar harbours. A group comprising bar harbour Harbourmasters, fishing industry representatives and Maritime New Zealand has developed the code after extensive consultation with all sectors of the maritime industry. This notice supersedes marine notice: Boats 02/2000.

Purpose

The purpose of the 'National Code of Practice' is to provide clear guidelines to the skipper and crew of **all** vessels regarding safe and prudent practice when attempting to cross any bar or river entrance.

Cautions

- **Extreme caution must be exercised when crossing bars.** Conditions prevailing on a bar or in river approaches may cause unusually sudden steep and often breaking seas. Conditions change quickly and unpredictably. The skipper's experience and the vessel type should be taken into account when a bar crossing is considered. However, no amount of experience or boat type makes crossing a bar **SAFE** when the conditions are marginal or adverse. No situation warrants taking the risk, so if in doubt **'STAY OUT'**.

- **Before leaving harbour a skipper must assess conditions on the bar**.** Skippers must be aware that a rapid change in conditions might prevent a safe return to harbour. Craft unable to weather adverse seas outside the bar should not leave port. Those vessels leaving for longer trips should ensure they have adequate reserve fuel and provisions to enable the vessel to remain at sea and/or divert to another port should adverse bar conditions prevail on their return.

*** It is a requirement of Westport Harbour's Navigation and Safety Bylaws that skippers contact the Port before attempting to cross the Buller River bar.*

- **Ensure that your vessel has sufficient stability.** All vessels must be in a stable condition. Skippers should be aware of all the factors that determine a vessel's stability including:

  - The free surface effect of liquids and loose fish.
  - Additional weights on deck, including portable ice slurry bins and fuel containers.
  - The loss of stability that occurs if deck enclosures or bins suddenly fill with water.
  - Modifications to a vessel may be detrimental to its stability. The vessel's statical stability should have been calculated after such alterations.
  - The movement of weights within the vessel including people.

- **Skippers should be aware that:**

  - All bars have areas of broken water containing air, which can severely reduce the stability and handling of a vessel;
  - In marginal conditions, night time crossings are more hazardous; and
  - Vessels attempting to cross a bar at or near low water are more likely to experience adverse conditions than at high water.

Prudent Practice

(a) **Effective communication must be established before attempting a crossing** between the skipper and the Harbourmaster or if unavailable, the Deputy Harbourmaster.

(b) **All skippers operating to and from bar harbours should obtain relevant up to date information** and a weather report pertinent to the area before crossing the bar, and take into account that information.

(c) **Stay at a safe distance offshore** until a report on the prevailing bar conditions has been obtained from the Harbourmaster or Deputy Harbourmaster. If in doubt **'STAY OUT'**.

(d) **Skippers should ensure that all deck openings, hatches and doors are securely battened down or closed, particularly off-centre line hatchways.** Freeing ports should be checked that they are clear and operating. Loose gear on deck including ice-slurry bins **and their lids** should be secured.

(e) **Before crossing any bar entrance, skippers should ensure that everyone on board is awake and dressed.**

(f) **Ensure lifesaving equipment is easily accessible and ready for immediate use. Every person should wear a Personal Flotation Device (PFD) of an appropriate size, particularly children.** There are many approved inflatable lifejackets that are easy and comfortable to wear.

(g) **Approaches should be made at a moderate speed in order that a skipper might increase or slacken speed** in order to steer out of trouble.

(h) **A lookout watching astern should be posted** to keep the helmsman informed of the approach of dangerous building swells.

(i) In the interests of safety and manoeuvrability the skipper should ensure the preceding vessel is well clear of the bar before proceeding.

(j) **Once across the bar, the skipper should confirm successful crossing** with the Harbourmaster or Deputy Harbourmaster.

1.2 Marine Notice Boats 8/1996 June – Stability of Fishing Boats

In the last 12 months, a total of thirteen fishing boats of less than 24 metres in length have capsized or foundered. Maritime New Zealand considers that the majority of these accidents could have been avoided had the Skippers been more aware of the stability characteristics of their boats.

A recent investigation by Maritime New Zealand into the loss of a 21 metre trawler contained many of the factors, which are increasingly of concern to Maritime New Zealand.

This particular accident resulted in capsize, in the Cook Strait, of a trawler fishing for hoki. The factors, which contributed to this accident were found to be:

(a) The amount of fish that was loaded on the boat – approximately 54 tonnes.

(b) The loss of stability due to:

- Modifications made to the boat following her initial build;
- Weight of fish on the deck and in the landed net at time of capsize;
- A partially full bunker oil tank beneath the freezer hold;
- Fish stowed above the level of the top of the fish hold pound boards; and
- A build-up of seawater on the deck of the boat prior to capsize.

(c) The Skipper's failure to recognise the danger posed by factors (a) and (b).

(d) The failure of the owners of the boat to provide the Skipper with any information regarding the maximum quantity of fish that could safely be taken by the boat.

Maritime New Zealand concluded that the loss of the boat was caused by a combination of unapproved modifications increasing the top weight of the boat, overloading, carrying fish too high in the boat, and the Skipper's lack of knowledge of the stability characteristics of the boat. These combined factors resulted in capsize and loss of the boat in conditions which the boat should normally have been expected to weather.

Maritime New Zealand strongly advises owners and skippers of fishing boats of **all sizes**, and particularly those engaged in trawling, dredging, or purse seining, to make themselves more aware of the actual stability capability of their boats.

If stability information has been provided by the designer/builder it should be studied. If necessary, a qualified naval architect should be employed to present the data in a simplified format including a few basic criteria that can be displayed on the boat. For example:

- any condition of loading that should be avoided;
- maximum loadings or minimum acceptable freeboards;
- any tank(s) which, when slack, has significant effect on the stability.

Check that the stability information is up to date. If modifications have been made since the information was prepared for the newly built boat, the stability information must be amended to take these into account.

For many boats, no stability information has been prepared. In these cases, Maritime New Zealand recommends that the owner seek a qualified naval architect's advice as to the current stability characteristics of the boat. The naval architect should be able to advise on any inherent lack of stability and how this might be improved, limitations on loading, and undesirable load conditions.

The attention of Skippers is drawn to Marine Notice **"Boats – 15/1995 November"** which contains very practical and simple advice on avoiding loss of stability when operating small boats.

Owners are reminded, once again, that it is an offence under the Maritime Transport Act 1994 for any alteration, which affects a surveyed boat's stability to be carried out without notifying and obtaining the prior approval of the Director of Maritime New Zealand.

Issued by:

Maritime New Zealand

1.3 **Marine Notice Boats 15/1995 November - Stability of Fishing Boats and Other Small Vessels Carrying Cargo or Passengers**

A number of vessels have recently capsized and foundered with loss of life due to loss of stability.

Loss of stability occurs for a number of reasons and in a variety of circumstances:

(a) Bad distribution of weight resulting in a vessel becoming top-heavy, e.g. large quantities of fish, craypots or cargo being stowed on deck, with little or no weight stowed below.

(b) The creation of a capsizing moment by attempting to clear crayfish pots and nets by hauling with the lifting gear.

(c) Use of the vessel's lifting gear for purposes other than those for which it was designed, e.g. swinging heavy weights over the side causing excessive heeling and possible capsize of the vessel.

(d) Water finding its way into the vessel or water being unable to escape from the deck.

(e) Partially filled fuel and water tanks, particularly in vessels with tanks extending from side to side.

(f) Overloading which reduces the vessel's reserve buoyancy and seriously affects stability.

The following points should be remembered to ensure the stability of your vessel:

- Fishing gear, spare gear and any heavy weights including cargo should be properly stowed and secured. They should be placed as low down in the boat as possible and stowed uniformly about the centre line. On all occasions deck loads of fish should be kept as small as possible. The greatest possible amount of fish should be stowed in the hold or freezer to maintain a low centre of gravity.
- Particular care should be taken when hauling catches and recovering heavy gear of when the trawl catches on an obstruction, as this may have an adverse effect on stability. Heavy weights suspended from lifting gear at sea should be secured to prevent them swinging from side to side.

- Be careful when filling tanks at sea because slack tanks cause a rapid loss of stability. At any one time keep the number of partially filled tanks to a minimum, the aim being to have as many tanks as possible either completely full or empty. When the main deck is prepared for carrying a deck load by division with pond boards, there must be slots between them to allow easy flow of water to the freeing ports. Freeing ports provided with closing appliances should always be capable of functioning and should never be bolted or blocked off. Ensure that all portable divisions in the hold are in place before loading fish in bulk. Any fish on deck must be restrained from moving and arranged so that it does not cause the vessel to list.
- In all conditions of loading, ensure that your boat has adequate freeboard (distance from main deck to water level). Make sure your boat is not overloaded with fish, cargo and/or passengers beyond the certified limits. This may seriously reduce your freeboard, which, in turn, can mean more water on deck in the event of bad weather.
- All doorways, hatchways, ports and other openings through which water can enter the hull or deckhouses must be properly closed while the boat is at sea and particularly in adverse weather conditions and all appliances for ensuring watertightness must be maintained in good condition.
- In the case of fishing vessels, hatch covers, doors and any ports should be kept properly closed when not in use during fishing.
- During bad weather, secure all closing devices on vent pipes to fuel tanks and to spaces below the main deck.
- If excessive or unusual heeling or yawing occurs, reduce speed and head into the sea as a first precaution.
- Reliance on automatic or fixed steering is dangerous as this prevents speedy manoeuvring which may be required in bad weather.
- Do not add top weight to your boat, e.g. by extending the size of the cabin or deckhouse or fitting additional deck machinery without ensuring that this will not adversely affect the stability of the vessel.
- Do not remove any permanent ballast from your boat or any substantial weights fitted low down in the boat without seeking advice on the effect it will have on your vessel's stability.

Detecting a Stability Problem

Lack of stability may first be detected by unusually heavy rolling, the slowness of the vessel's roll, a tendency to list either with wind or wave motion, the deck edge regularly submerging in a seaway and a reluctance to come back to an upright position after applying helm.

A naval architect, professional boat builder or a surveyor of ships should be consulted whenever substantial alterations to a boat are contemplated or if there are any doubts regarding a vessel's stability characteristics.

Under Section 131 of the Maritime Transport Act, every person who intends to carry out any major alteration to their vessel shall apply to the Director of Maritime New Zealand for approval for the work to be carried out.

Issued by:

Maritime New Zealand

2.0 CROSSING THE WESTPORT BAR

The most important requirement for crossing the Bar and entering Westport is to obtain qualified advice first, from the Harbourmaster or Port Information Line. The Bar can extend up to half a nautical mile off the entrance. ***Mariners are advised they must keep at least one mile off the entrance until making their approach to cross the Bar.*** The latest Bar Plan can be faxed or emailed by request to the Harbour Office.

Bar conditions are a function of:

- The **run** in the river
- The **set** (cross current) at the entrance
- **Swell** size and direction
- **Wind** and **sea** conditions
- Available **depth** of water (determined by tidal height and position of sandbanks)

Any one, or any combination, of the above could make crossing the Bar dangerous

The run in the river peaks 12-18 hours after heavy rain in the mountains and can reach 8-10 knots even though the river may not appear to be in flood. The danger is not being able to make headway against the run, especially at the entrance. Very steep and short (close together) breaking waves can develop as the run holds up the incoming swells.

With heavy NW swells or strong SW/W winds, the current (called **set**) across the Bar entrance can reach 5 knots, with the danger of being pushed into breaking shallows to the East very quickly. To counteract strong set may mean presenting your beam to the swell with subsequent danger of broaching. Generally, we describe the set as easterly or westerly, slight, moderate, strong or very strong. If it is very strong (4 to 6 knots), crossing is ill advised. Sometimes you can have different sets, e.g. a westerly set at 5 cables and then an easterly set close in. **(*See Easterly Set Diagram – Item 7.0*)**

Westport Harbour entrance faces North. Generally, a north/westerly swell will affect the Bar the most, although a heavy SW swell is quite capable of refracting around Cape Foulwind and breaking on the Bar. Swells of 4 metres are not uncommon. Sometimes a long, low swell, barely noticeable off the coast, can produce a nasty breaking wave at the outer shoals. **Always watch out behind you as you cross, a crew member can look out and warn of a building swell.**

The available depth of water is important. Set and breaking swells are considerably reduced at the top of the tide, it is especially noticeable as the tide reaches 3 metres above chart datum on the day. It can be worthwhile waiting for that situation.

The bar is generally sounded after significant weather events or as required. The most recent Bar Information will be posted on the noticeboard at Talley's, or can be emailed to you.
Information is also available on the Westport Harbour website: (http://www.westportharbour.co.nz/current-port-information.php) under the heading "bar status" or by calling the information line **(03) 788 8086 (24hrs).**

If your draft is 3.0 metres or more, you require a pilot (see Maritime Rule 90, Pilotage). Advice from the Harbour Master on bar conditions, depth of water and the recommended route across the bar, is available by calling **phone (03) 788 8086 (24hrs).** On arrival all vessels must switch to Channel 14 VHF from one mile outside the tipheads until made fast at the berth and on leaving the reverse applies.

Please note the date of each sounding. As conditions may change daily, particularly the bar, lagoon entrance and river berths, there is no certainty that the depths shown remain current. The Buller District Council does not give any warranty as to the accuracy of these soundings.

Port Entry and Departure
Port entry or departure should not be made when waves are breaking on the bar or entrance. Contact the Harbourmaster prior to attempting to cross the bar in these conditions.

Disclaimer
While the Buller District Council has exercised all reasonable care and skill in carrying out and analysing soundings, it accepts no liability in contract, tort or otherwise howsoever, for any loss, damage, injury or expense (whether direct, indirect or consequential) arising out of the provision of this information to any person or organisations.

SOUNDING ACCURACY VARIES plus or minus **0.1 METRES**

Definitions of leading lines, which are used to describe safe routes:

Beacon Line: Rear Lead (large square frame with orange boards and orange diamond topmark.) By day in line with Front Lead, yellow pole with X topmark. Night time two fixed green neon's in line one with the other.

East Limit: By day a line with the first black and white pole (to the East of the Front lead) in line with the rear lead. Night time this pole has a red fluorescent lamp, which is to be in line with the rear lead green neon.

Broad East: By day a line with the second black and white pole in line with the rear lead. At night the blue fluorescent lamp is to be in line with the rear lead green neon.

First East: **By day only** a line with inside of the east breakwater head to the rear lead.

West Limit and Broad West Limit are daytime leads only. Advice on these leads can be obtained by contacting the Harbour Master.

If in doubt, stay out. Lack of sleep, illness, the extra diesel consumed or the desire to be alongside, do not justify the risk – ever!

3.0 COMMUNICATION

All vessels without exception must change to Channel 14 VHF at 1 (one) mile from breakwater entrance until berthed or vice versa. This is the Port's working frequency.

All vessels must contact the Port prior to entry for conditions by phoning 03 788 8086 (24hrs).

4.0 ADVICE TO FISHING VESSEL OPERATORS - DUTIES UNDER THE HEALTH & SAFETY AT WORK ACT 2015

The Buller District Council as manager for the Port of Westport is committed to meeting its duties under the Health and Safety at Work Act 2015 and therefore continues to work to improve safety and health at the port.

BDC has duties under the Act as a (PCBU) "**a person conducting a business or undertaking"** and as ''**workers**"

These duties require the PCBU and its workers to:

(a) **Take reasonably practicable steps to ensure the health & safety of employees and other persons while at work.**
(b) **Take reasonable care with their own health and safety and that of others**

BDC has a number of systems in place to respond to its duties under the Act:

- A Safety Management System, which is recognised by Maritime New Zealand, reviewed annually and externally audited every 5 years depending on Port performance.
- Acting on health and safety issues raised by port users
- Maintenance and upgrading of facilities where practicable
- Contractors are informed of hazards and controls at the port by way of signs and written or verbal information and must comply with this information.

Fishing Vessel Operators using the Port of Westport also have duties under the Health and Safety at Work Act as employers, self-employed people and visitors to the port.

Whilst at sea, Maritime New Zealand is the regulator HOWEVER once a fishing vessel ties up at one of our wharves/jetties, that vessel becomes part of our "place of work" and thus the **'person with control of that place of work'. Therefore:**

- Anyone who employs staff and uses the Port, has the same obligations as outlined above for BDC as an employer, and as a person with control of the place of work.

- Self-employed people have a duty under the Act to ensure that any action or inaction on their part does not harm themselves or any other person.

BDC advises Fishing Vessel Operators that they must be aware of their duties under the Health and Safety at Work Act.

If you require further information, please contact WorkSafe NZ on 0800 675 699 or visit http://worksafehelp.co.nz/

5.0 REQUIREMENTS – WESTPORT HARBOUR

The Port will do all it can to accommodate you but the consideration of all Port users will take precedence over the individual. Berthing may be at a premium at busy times.

- All vessels fitted with stabilisers **must be retracted**. Not retracting a stabiliser is a breach of Maritime Rule 91.13. Your vessel and its crew are required to comply with all maritime rules and laws. Failure to do so can lead to infringement notices and significant fines.

- **Garbage** – Skips are provided on the Main Wharf for **galley refuse only,** (e.g. plastic, cardboard, bottles, tins etc). **No commercial rubbish** i.e. old wires, appliances, R&M materials etc. is to be dumped. Security cameras operate on the main wharf and will identify illicit dumping offenders. **No oil or oil contaminated items** are to be dumped into these bins. That is the responsibility of the Skipper/Owner.

- **Used Engine Oil** must be put into the red oil tank provided on the main wharf, do not leave in separate containers. Used filters to be placed in the drum provided.

  UNAUTHORISED WASTE OIL DUMPING IS AN OFFENCE!

- **Shore power.** The maximum amperage allowed is 10 amps for single phase and 63 amps for 3 phase and **no welding equipment is to be used via the single phase outlets**. Any vessel continually tripping the shore power outlets will be refused connection again until a Certified Electrician, authorised by the Harbourmaster, has inspected the system to ascertain the fault. Costs for any repairs required to the shore equipment will be charged to your account if done by you.

- **No unauthorised parking is allowed on the commercial wharves.** "No Parking" lines have been established with yellow lines. Trucks, fork lifts and other commercial vehicles may operate at all times within those lines. Obstructing vehicles may be removed at owners risk and cost. The main entrance security gate must be kept closed at all times when not in use. Care must be taken not to obstruct the automatic closing mechanism of the main gate. Costs for any damage to the wharf or other Port assets and attributable to vessel crew or contractors, will be charged to the vessel owner.

The pedestrian gate is available for access and its keypad code is **"Reset 1234"**. This entrance is for fishing **vessel crew use** only.

- It is the Master's responsibility to see that his vessel is **securely moored** at all times, allowing for the considerable rise and fall of tide, which can be up to 3.6 metres.

- Observe **Fire Safety** precautions at all times.

- **Refuelling –** Contact Talley's 03 788 9172 or 03 788 9175

- This Port has an **Oil Spill** Contingency Plan. Any spillage is to be contained and reported to the Harbourmaster at once on **(03) 788 8086** or the West Coast Regional Council on **0508 800 118 (24hrs)**.

- The **Emergency Evacuation** assembly point is on the main wharf at the yellow entrance gates. The evacuation route is clearly signposted from the harbour office and at various points along the wharf.

6.0 Extracts from the "NZ Professional Skipper Magazine"

Due to their numerous locations all around the New Zealand coastline, bar entrances continue to be a focal point of everyday life for many mariners.

Whether these entry points to the sea originate from rivers, estuaries or harbours, they all have the same inherent characteristic – Danger! Crossing a bar requires caution and respect. External pressures of work, dollars or peer pressure can cloud one's ability to make a sound judgement.

All ports with bar entrances have their own features. Tidal state and flow, catchment area, prevailing longshore currents and swell are all important variables to consider. One inherent characteristic all bars have in common is their ability to change, sometimes overnight, even from tide to tide. These changes must be constantly monitored, and their effect is important to consider when planning a crossing.

Incoming tide is also preferable, as this eliminates nasty "pressure waves" at the entrance, unless a river is in flood. An additional hazard which comes with any river entrance is floating, or worse still, neutrally buoyant debris, such as logs. These can pose serious problems for all vessels, even days after a flood or large coastal swell.

Another important aspect is the distinct possibility of catching a swell, which suddenly turns into a breaking wave. Some boats will easily broach and put their occupants into grave danger.

The size and shape of a wave is critical. High and low frequency waves can combine to produce two or three much larger waves, a phenomenon which causes the unpredictable killer wave.

It is important to know the spacing between waves, but remember the distance to travel to safety and compare that to the speed of the vessel through the passage. It is worth noting that the average speed over ground of a swell is about 20 knots.

The direction of waves and the angle that the wave approaches the stern of the vessel is critical.

Where sea room permits and the options are available it is recommended that the waves or swells should meet the stern of the vessel at right angles, or square to the stern. In some cases a zig-zag course takes

place as one maintains the desired course, then as the swell nears the stern, will change to receive the wave square off. As soon as the wave passes by the helmsman will steer off again to maintain the course made good.

Many harbours such as Westport have a strong set across the entrance. Due to the leeway created this can affect the compass course being steered and the relative angle that the swells will be approaching the vessel.

One method to check for set from a safe distance is to steer a course similar to the course to be steered on the bar, observe a transit ahead (any two land-based objects in line), then take a compass bearing steered and maintain the observed transit for say, five minutes, then again check the compass bearing. Any appreciable change in compass bearing is evidence of set.

The goal is to enter any bar from the closest safe position, which does not put you in jeopardy. Remember if it's marginal to cross, it's going to be marginal to effect a rescue without putting further lives at risk.

If you have any doubts about the sea conditions, your vessel or any other factor, don't attempt a bar crossing. Stay at sea or in port and let someone know what decision you have made.

Use the coastal marine VHF service. If requested they will contact the Harbourmaster or some other responsible person for you, who will then make contact with your vessel from the shore. Someone on shore is generally able to view the face of the waves over a much wider area. The Nautical Almanac contains telephone and radio contact details of all New Zealand ports, and also the name of the coastal station to call.

Every captain must ask themselves whenever they approach a dodgy bar situation:

There is no "black and white" way to cross a bar, as every vessel, every skipper and every sea situation is different. However, there are some golden rules to remember:

- experience of the master and crew
- recent knowledge of the bar
- the stress and impact of the prevailing weather
- the state of the tide, and the available depth of water
- the size and type of vessel
- fuel and mechanical reliability

- its draught
- its trim, loading and stability

If a large wave does strike, the vessel's stability will have a huge bearing on its ability to survive. Poor stowage of fish or cargo, the free surface effect of slack tanks, deck water and water in holds, stowage of heavy gear above the deck, such as ice boxes. Overloading and modifications that effect the vessel'' stability criteria should be avoided at all costs.

The elements that are present at a bar include:

- swell height and direction
- bar depth
- river velocity
- wind speed and direction
- set strength and direction
- visibility

7.0 EASTERLY SET DIAGRAM (not to scale)

Fresh water floats on top of the salt water. The meeting of the two makes a distinctive line from which a good indication of the strength of the set can be judged. The diagram below shows the effect of an easterly set. A similar situation can occur with a westerly set however the lines would be in the opposite direction. **REMEMBER** an easterly set pushes your vessel to the East and a westerly set pushes your vessel to the West.