

With the compliments of



South Port NZ

TIDE TABLES
2019
BLUFF

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Telephone 03-212 8159
Facsimile 03-212 8685

NOTE:

The following times for high and low water slack at Bluff Tide Beacon for the 12 month period have been calculated for arrivals and departures of major shipping at the Port of Bluff and may vary slightly from actual slack water at the port.

New Zealand daylight time (NZDT) ends at 0200 7th April 2019 and restarts at 0200 29th September 2019.

Where appropriate tide times have been corrected for N.Z.D.T. i.e. Do NOT add 1 hour.

While every effort is made by the company to ensure the accuracy of these tables the company accepts no responsibility for any omissions or errors.

SEA CODE

The Collision Regulations, Water recreation Regulations and By-laws govern the use of any vessel on the water. It is the duty of every master or operator to become fully conversant with these regulations.

Over recent years, many complaints have been lodged that the noise of boats has disturbed local residents, picnic parties and fish.

Do you know that the exhaust from your boat must be discharged through an efficient silencing device?

Other complaints have also been received about the behaviour of power boats and water skiers in anchorages and near crowded beaches.

Do you know that it is against the law to travel at a greater speed than 8 km an hour when within 188 metres of the shore or when passing within 30 metres of any other vessel, whether under way or moored or of any person bathing or fishing?

With the upsurge of the sport of water skiing, it became necessary to provide some means for the skier and tow boat to have access through the speed restricted area when proceeding to and from the shore. Water skiers are unable to proceed at so slow a speed as 8 km an hour.

Do you know that water skiers and their tow boats may not leave or approach the shore except in a properly designated "access lane" or where a special area of water has been set apart in which speed restrictions don't apply?

It is difficult for a tow boat driver to watch a skier and the water ahead at the same time.

Do you know that boats towing water skiers must carry another person as well as the driver?

As with motor cars, drivers of speed boats should be a responsible age.

Do you know that in order to drive any power boat capable of 16 km an hour or more, the driver must be at least 15 years of age?

Accidents are not pleasant experiences. As there are "rules of the road", so there are "rules of the sea".

Do you know that when in shipping lanes or narrow marked channels, you must always keep to the starboard side of the channel?

Do you know that you must not impede the navigation of any vessel of 500 tonnes gross or more, or any hovercraft or any seaplane in the process of taking off or landing?

Do you know that you must not anchor in any ski or surfing access lane?

Lack of consideration for other people enjoying beaches, fishing and bathing by drivers of speed boats and water skiers is often the cause of complaints.

Do you know that supervising officers, honorary launch wardens and honorary beach rangers, appointed by the Regional Council can require you to stop your power boat, to supply your name and address, and to insist you obey the bylaws?

10 GOLDEN RULES FOR SAFE BOATING

1. Watch the weather. Listen to marine broadcasts. The weather over sea areas is often different from that over land. Keep an eye on the weather when you are at sea. Make for shelter at the first sign of bad weather.
2. Do not overload your boat with people or gear. Wear tested Life Jackets.
3. Equip your boat for its particular purpose. Know how to handle it and all the equipment in it.
4. Keep your engine in good working order at all times. Carry spare fuel
5. Know the Collision Regulations and local bylaws, and the Water Recreation Regulations.
6. Keep a good lookout at all times.
7. Know how to recognise all the distress signals and be sure that you know how to operate those you carry and keep them fresh.
8. Guard against fire. Know how to deal with one if it occurs.
9. Do not mix boating and drinking.
10. Before you leave on any trip tell a reliable person ashore where you intend to go and when you expect to return. Leave an accurate description of your boat and its equipment with this person. If you do not return on time they should inform the police at once and a search will be organised. If you decide to stay away longer than intended or you go to a different destination be sure that you let your contact know.

South Port NZ
promoting safe boating

COLLISION REGULATIONS

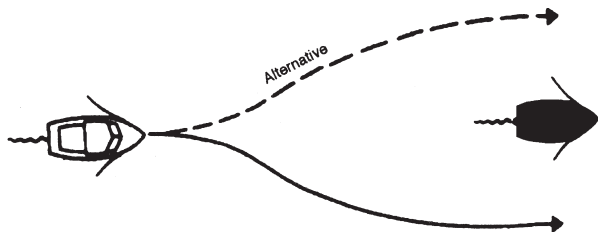
(See "Safety in Small Craft" for full rules)

Rule 9

When in narrow channels power-driven vessels keep to the starboard (right-hand) side, and if less than 20 m (65 ft) in length should not hamper larger vessels.

Rule 13

The overtaking vessel gives way. This applies to any overtaking vessel, which includes sailing vessels.



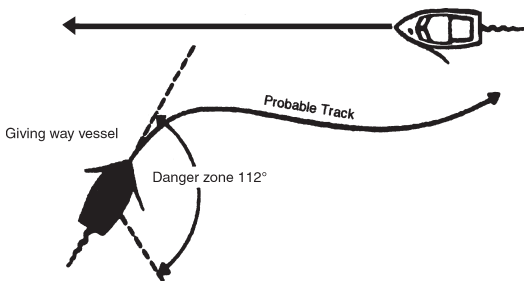
Rule 14

When two power-driven vessels are meeting end on, each shall alter course to starboard (right) so as to pass on the port side of the other.



Rule 15

When two power-driven vessels are crossing so as to involve risk of collision, the vessel which has the other on her starboard (right) side shall keep out of the way and avoid crossing ahead of the other.

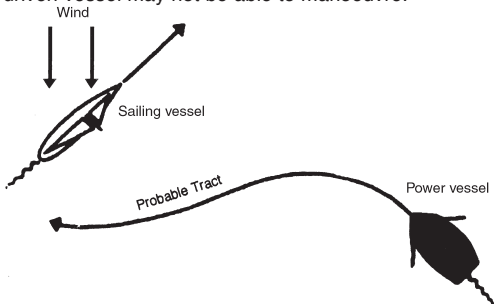


Rule 17

When another vessel gives way to you under the rules, you are obliged to maintain your course and speed.

Rule 18

When a power-driven vessel is in danger of collision with a sailing vessel, the power-driven vessel gives way, except in a narrow channel where a large power-driven vessel may not be able to manoeuvre.



Note: Full details and Amendments can be found in the regulations.

STAY SAFE ON THE WATER

Environment Southland is committed to safe boating for everyone and works in partnership with Maritime New Zealand to ensure boaties are keeping themselves and others safe.

Communication is a key to staying safe. You should always have two forms of working communication and ensure somebody knows where you are heading and when you are expected to return.

The local VHF channels are 61 and 65.

If you have a maritime accident or incident, you are required to report it to the Southland harbourmaster and Maritime New Zealand immediately. You must also provide a written report within 48 hours.

Southland Harbourmaster

0800 76 88 45

harbourmasters@es.govt.nz

Maritime New Zealand

0508 472 269

www.maritimenz.govt.nz

(search 'report online')

In the event of an oil spill, regardless of the size, you should contact the Oil Spill Pollution Hotline on 0800 76 88 45.

You can find out more about the Navigation Safety Bylaws and other boating information at www.es.govt.nz.



New Moon 6th
First Quarter 14th

JANUARY 2019

Full Moon 21st
Last Quarter 28th

<i>Date</i>	<i>Time</i>	<i>Ht</i>	<i>Date</i>	<i>Time</i>	<i>Ht</i>	<i>Date</i>	<i>Time</i>	<i>Ht</i>	<i>Date</i>	<i>Time</i>	<i>Ht</i>
1	05:30	0.80	10	06:00	2.60	19	01:15	2.70	28	03:00	0.80
TUE	11:45	2.60	THU	12:15	0.90	SAT	07:30	0.80	MON	09:15	2.60
	18:00	0.80		18:15	2.50		13:45	2.70		15:30	0.80
							20:00	0.60		22:00	2.60
2	00:15	2.60	11	00:30	0.90	20	02:15	2.80	29	04:00	0.90
WED	06:30	0.80	FRI	06:30	2.50	SUN	08:30	0.70	TUE	10:30	2.50
	12:45	2.60		12:45	1.00		14:30	2.80		16:30	0.90
	19:00	0.80		18:45	2.50		20:45	0.50		23:00	2.60
3	01:15	2.60	12	01:15	1.00	21	03:00	2.90	30	05:15	0.90
THU	07:15	0.80	SAT	07:15	2.50	MON	09:15	0.60	WED	11:30	2.50
	13:30	2.60		13:30	1.00		15:15	2.90		17:30	0.90
	19:45	0.80		19:30	2.40		21:45	0.40			
4	02:00	2.60	13	02:00	1.00	22	03:45	3.00	31	00:00	2.50
FRI	08:15	0.80	SUN	08:00	2.40	TUE	10:00	0.50	THU	06:00	1.00
	14:15	2.60		14:15	1.10		16:15	3.00		12:15	2.50
	20:30	0.70		20:30	2.40		22:30	0.40		18:30	0.90
5	02:45	2.60	14	02:45	1.00	23	04:45	3.00			
SAT	09:00	0.80	MON	08:45	2.40	WED	11:00	0.50			
	15:00	2.60		15:00	1.10		17:00	3.00			
	21:15	0.70		21:15	2.40		23:30	0.40			
6	03:30	2.60	15	03:30	1.10	24	05:30	3.00			
SUN	09:30	0.80	TUE	09:45	2.40	THU	11:45	0.50			
	15:45	2.60		16:00	1.10		18:00	2.90			
	22:00	0.80		22:15	2.40						
7	04:00	2.60	16	04:30	1.00	25	00:15	0.40			
MON	10:15	0.80	WED	10:45	2.40	FRI	06:30	2.90			
	16:15	2.60		17:00	1.00		12:45	0.60			
	22:30	0.80		23:15	2.50		18:45	2.90			
8	04:45	2.60	17	05:30	1.00	26	01:15	0.50			
TUE	11:00	0.90	THU	11:45	2.50	SAT	07:15	2.80			
	17:00	2.60		18:00	0.90		13:30	0.60			
	23:15	0.80					19:45	2.80			
9	05:15	2.60	18	00:15	2.60	27	02:00	0.60			
WED	11:30	0.90	FRI	06:30	0.90	SUN	08:15	2.70			
	17:30	2.60		12:45	2.60		14:30	0.70			
	23:45	0.90		19:00	0.80		20:45	2.70			

Times and Heights of High and Low Waters
Heights in Metres

New Moon 5th
First Quarter 13th

FEBRUARY 2019

Full Moon 20th
Last Quarter 27th

<i>Date</i>	<i>Time</i>	<i>Ht</i>	<i>Date</i>	<i>Time</i>	<i>Ht</i>	<i>Date</i>	<i>Time</i>	<i>Ht</i>	<i>Date</i>	<i>Time</i>	<i>Ht</i>
1	00:45	2.50	10	00:30	0.90	19	02:45	2.90	28	04:45	1.00
FRI	07:00	1.00	SUN	06:45	2.50	TUE	09:00	0.50	THU	11:00	2.40
	13:15	2.50		13:00	0.90		15:00	3.00		17:15	1.00
	19:30	0.90		19:00	2.50		21:15	0.40		23:30	2.50
2	01:30	2.60	11	01:15	0.90	20	03:30	3.00			
SAT	07:45	0.90	MON	07:15	2.50	WED	09:45	0.40			
	14:00	2.60		13:45	1.00		16:00	3.00			
	20:15	0.80		19:45	2.50		22:15	0.30			
3	02:15	2.60	12	02:00	1.00	21	04:30	3.00			
SUN	08:30	0.90	TUE	08:15	2.40	THU	10:30	0.40			
	14:30	2.60		14:30	1.00		16:45	3.00			
	20:45	0.80		20:45	2.40		23:00	0.30			
4	03:00	2.60	13	03:00	1.00	22	05:15	3.00			
MON	09:15	0.90	WED	09:00	2.40	FRI	11:30	0.40			
	15:15	2.60		15:30	1.00		17:30	3.00			
	21:30	0.80		21:45	2.40						
5	03:45	2.60	14	04:00	1.10	23	00:00	0.40			
TUE	09:45	0.80	THU	10:15	2.40	SAT	06:00	2.90			
	15:45	2.60		16:30	1.00		12:15	0.50			
	22:15	0.80		22:45	2.50		18:30	2.90			
6	04:15	2.60	15	05:00	1.00	24	00:45	0.50			
WED	10:30	0.80	FRI	11:15	2.50	SUN	07:00	2.80			
	16:30	2.60		17:30	0.90		13:15	0.60			
	22:45	0.80		23:45	2.60		19:30	2.80			
7	04:45	2.60	16	06:15	0.90	25	01:45	0.70			
THU	11:00	0.80	SAT	12:15	2.60	MON	07:45	2.70			
	17:00	2.60		18:45	0.80		14:00	0.80			
	23:15	0.80					20:30	2.60			
8	05:30	2.60	17	01:00	2.70	26	02:30	0.80			
FRI	11:30	0.90	SUN	07:15	0.80	TUE	08:45	2.50			
	17:45	2.60		13:15	2.70		15:00	0.90			
				19:30	0.60		21:30	2.50			
9	00:00	0.80	18	01:45	2.80	27	03:30	1.00			
SAT	06:00	2.60	MON	08:00	0.70	WED	10:00	2.50			
	12:15	0.90		14:15	2.80		16:00	0.90			
	18:15	2.50		20:30	0.50		22:30	2.50			

Times and Heights of High and Low Waters
Heights in Metres

New Moon 7th
First Quarter 14th

MARCH 2019

Full Moon 21st
Last Quarter 28th

<i>Date</i>	<i>Time</i>	<i>Ht</i>	<i>Date</i>	<i>Time</i>	<i>Ht</i>	<i>Date</i>	<i>Time</i>	<i>Ht</i>	<i>Date</i>	<i>Time</i>	<i>Ht</i>
1	05:45	1.10	10	05:30	2.60	19	01:30	2.80	28	03:00	1.00
FRI	12:00	2.40	SUN	11:45	0.80	TUE	07:45	0.60	THU	09:15	2.40
	18:15	1.00		17:45	2.60		14:00	2.90		15:30	1.00
							20:15	0.50		22:00	2.40
2	00:30	2.50	11	00:00	0.80	20	02:30	2.90	29	04:15	1.10
SAT	06:45	1.00	MON	06:15	2.60	WED	08:45	0.50	FRI	10:30	2.40
	12:45	2.50		12:30	0.90		14:45	3.00		16:45	1.00
	19:00	0.90		18:30	2.60		21:00	0.40		23:00	2.40
3	01:15	2.50	12	00:45	0.90	21	03:15	3.00	30	05:15	1.10
SUN	07:30	1.00	TUE	06:45	2.50	THU	09:30	0.40	SAT	11:30	2.40
	13:30	2.50		13:15	0.90		15:30	3.00		17:45	1.00
	19:45	0.90		19:15	2.50		22:00	0.30			
4	02:00	2.50	13	01:30	1.00	22	04:00	3.00	31	00:00	2.40
MON	08:15	0.90	WED	07:45	2.50	FRI	10:15	0.40	SUN	06:15	1.10
	14:15	2.60		14:00	1.00		16:30	3.00		12:15	2.40
	20:30	0.80		20:15	2.50		22:45	0.40		18:30	1.00
5	02:30	2.60	14	02:30	1.00	23	04:45	3.00			
TUE	08:45	0.90	THU	08:45	2.40	SAT	11:00	0.40			
	14:45	2.60		15:00	1.00		17:15	3.00			
	21:00	0.80		21:15	2.50		23:30	0.50			
6	03:15	2.60	15	03:30	1.00	24	05:45	2.90			
WED	09:30	0.80	FRI	09:45	2.40	SUN	11:45	0.50			
	15:30	2.60		16:00	0.90		18:00	2.90			
	21:45	0.80		22:30	2.50						
7	03:45	2.70	16	04:45	1.00	25	00:15	0.60			
THU	10:00	0.80	SAT	11:00	2.50	MON	06:30	2.80			
	16:00	2.70		17:15	0.90		12:45	0.60			
	22:15	0.80		23:30	2.60		19:00	2.70			
8	04:15	2.70	17	05:45	0.90	26	01:15	0.80			
FRI	10:30	0.80	SUN	12:00	2.60	TUE	07:15	2.60			
	16:30	2.70		18:15	0.70		13:30	0.80			
	22:45	0.80					20:00	2.60			
9	05:00	2.70	18	00:30	2.70	27	02:00	0.90			
SAT	11:15	0.80	MON	06:45	0.80	WED	08:15	2.50			
	17:15	2.60		13:00	2.70		14:30	0.90			
	23:30	0.80		19:15	0.60		21:00	2.50			

Times and Heights of High and Low Waters
Heights in Metres

New Moon 5th
First Quarter 13th

APRIL 2019

Full Moon 19th
Last Quarter 27th

<i>Date</i>	<i>Time</i>	<i>Ht</i>	<i>Date</i>	<i>Time</i>	<i>Ht</i>	<i>Date</i>	<i>Time</i>	<i>Ht</i>	<i>Date</i>	<i>Time</i>	<i>Ht</i>
1 MON	00:45 07:00 13:00 19:15	2.50 1.00 2.50 0.90	10 WED	05:30 11:45 18:00	2.50 0.80 2.60	19 FRI	02:00 08:00 14:15 20:30	2.90 0.40 3.00 0.40	28 SUN	03:30 09:45 16:00 22:15	1.20 2.30 1.10 2.40
2 TUE	01:30 07:45 13:45 20:00	2.50 0.90 2.50 0.90	11 THU	00:15 06:15 12:45 19:00	0.90 2.50 0.90 2.50	20 SAT	02:45 09:00 15:00 21:15	2.90 0.40 3.00 0.50	29 MON	04:30 10:30 16:45 23:00	1.10 2.40 1.00 2.40
3 WED	02:00 08:15 14:15 20:30	2.60 0.90 2.60 0.80	12 FRI	01:15 07:15 13:45 20:00	1.00 2.50 0.90 2.50	21 SUN	03:30 09:45 15:45 22:00	2.90 0.50 2.90 0.60	30 TUE	05:15 11:30 17:30 23:45	1.10 2.40 1.00 2.50
4 THU	02:45 09:00 15:00 21:15	2.60 0.80 2.60 0.80	13 SAT	02:15 08:30 14:45 21:15	1.00 2.50 0.90 2.50	22 MON	04:15 10:30 16:45 23:00	2.80 0.60 2.80 0.70			
5 FRI	03:15 09:30 15:30 21:45	2.70 0.80 2.70 0.70	14 SUN	03:30 09:30 16:00 22:15	1.00 2.50 0.80 2.60	23 TUE	05:00 11:15 17:30 23:45	2.70 0.70 2.70 0.80			
6 SAT	03:45 10:00 16:00 22:30	2.70 0.80 2.70 0.70	15 MON	04:30 10:45 17:00 23:15	0.90 2.60 0.70 2.70	24 WED	05:45 12:00 18:30	2.60 0.80 2.50			
7 SUN	03:30 09:45 15:45 22:00	2.70 0.70 2.70 0.80	16 TUE	05:30 11:45 18:00	0.70 2.80 0.60	25 THU	00:30 06:45 13:00 19:15	1.00 2.50 0.90 2.50			
8 MON	04:00 10:15 16:30 22:45	2.60 0.80 2.60 0.80	17 WED	00:15 06:30 12:30 18:45	2.80 0.60 2.90 0.50	26 FRI	01:30 07:45 14:00 20:15	1.10 2.40 1.00 2.40			
9 TUE	04:45 11:00 17:15 23:30	2.60 0.80 2.60 0.90	18 THU	01:00 07:15 13:30 19:45	2.90 0.50 2.90 0.40	27 SAT	02:30 08:45 15:00 21:15	1.10 2.30 1.10 2.40			

Times and Heights of High and Low Waters
Heights in Metres

New Moon 5th
First Quarter 12th

MAY 2019

Full Moon 19th
Last Quarter 27th

<i>Date</i>	<i>Time</i>	<i>Ht</i>	<i>Date</i>	<i>Time</i>	<i>Ht</i>	<i>Date</i>	<i>Time</i>	<i>Ht</i>	<i>Date</i>	<i>Time</i>	<i>Ht</i>
1	06:00	1.00	10	00:00	0.90	19	02:15	2.80	28	03:45	1.10
WED	12:00	2.50	FRI	06:15	2.60	SUN	08:30	0.50	TUE	09:45	2.40
	18:15	0.90		12:30	0.80		14:45	2.80		16:00	1.10
				18:45	2.60		21:00	0.60		22:15	2.40
2	00:30	2.60	11	01:00	0.90	20	03:00	2.80	29	04:30	1.10
THU	06:45	0.90	SAT	07:15	2.50	MON	09:15	0.60	WED	10:45	2.40
	12:45	2.60		13:30	0.80		15:30	2.80		16:45	1.00
	19:00	0.80		19:45	2.60		21:45	0.70		23:00	2.50
3	01:00	2.60	12	02:00	0.90	21	03:45	2.70	30	05:15	1.00
FRI	07:15	0.80	SUN	08:15	2.50	TUE	10:00	0.60	THU	11:30	2.50
	13:15	2.60		14:30	0.80		16:15	2.70		17:30	1.00
	19:30	0.80		21:00	2.60		22:30	0.80		23:45	2.50
4	01:45	2.70	13	03:00	0.90	22	04:30	2.60	31	06:00	0.90
SAT	08:00	0.80	MON	09:15	2.60	WED	10:45	0.70	FRI	12:00	2.50
	14:00	2.70		15:45	0.80		17:00	2.60		18:15	0.90
	20:15	0.80		22:00	2.60		23:15	0.90			
5	02:15	2.70	14	04:15	0.80	23	05:15	2.50			
SUN	08:30	0.70	TUE	10:30	2.70	THU	11:45	0.80			
	14:45	2.70		16:45	0.70		17:45	2.50			
	21:00	0.70		23:00	2.70						
6	03:00	2.70	15	05:15	0.70	24	00:00	1.00			
MON	09:15	0.70	WED	11:15	2.80	FRI	06:15	2.50			
	15:15	2.70		17:45	0.60		12:30	0.90			
	21:45	0.70		23:45	2.80		18:45	2.40			
7	03:45	2.70	16	06:00	0.60	25	00:45	1.10			
TUE	10:00	0.70	THU	12:15	2.80	SAT	07:00	2.40			
	16:00	2.70		18:30	0.60		13:15	1.00			
	22:30	0.80					19:30	2.40			
8	04:30	2.70	17	00:45	2.80	26	01:45	1.10			
WED	10:45	0.70	FRI	07:00	0.60	SUN	08:00	2.30			
	17:00	2.70		13:00	2.90		14:15	1.10			
	23:15	0.80		19:15	0.60		20:30	2.40			
9	05:15	2.60	18	01:30	2.80	27	02:45	1.20			
THU	11:30	0.70	SAT	07:45	0.50	MON	09:00	2.30			
	17:45	2.60		14:00	2.90		15:15	1.10			
				20:15	0.60		21:30	2.40			

Times and Heights of High and Low Waters
Heights in Metres

New Moon 3rd
First Quarter 10th

JUNE 2019

Full Moon 17th
Last Quarter 25th

<i>Date</i>	<i>Time</i>	<i>Ht</i>	<i>Date</i>	<i>Time</i>	<i>Ht</i>	<i>Date</i>	<i>Time</i>	<i>Ht</i>	<i>Date</i>	<i>Time</i>	<i>Ht</i>
1	00:30	2.60	10	01:45	0.80	19	03:30	2.70	28	04:30	1.10
SAT	06:45	0.80	MON	08:00	2.60	WED	09:45	0.70	FRI	10:45	2.40
	12:45	2.60		14:15	0.70		16:00	2.60		16:45	1.00
	19:00	0.80		20:30	2.60		22:00	0.80		23:00	2.50
2	01:15	2.60	11	02:45	0.80	20	04:00	2.60	29	05:15	1.00
SUN	07:30	0.80	TUE	09:00	2.60	THU	10:30	0.80	SAT	11:30	2.50
	13:30	2.70		15:15	0.70		16:30	2.60		17:45	0.90
	19:45	0.80		21:30	2.60		22:45	0.90			
3	02:00	2.70	12	03:45	0.80	21	04:45	2.60	30	00:00	2.50
MON	08:00	0.70	WED	10:00	2.70	FRI	11:15	0.80	SUN	06:15	0.90
	14:15	2.70		16:15	0.70		17:15	2.50		12:15	2.60
	20:30	0.70		22:30	2.70		23:30	1.00		18:30	0.90
4	02:30	2.70	13	04:45	0.80	22	05:30	2.50			
TUE	08:45	0.60	THU	11:00	2.70	SAT	12:00	0.90			
	15:00	2.80		17:15	0.70		18:00	2.50			
	21:15	0.70		23:30	2.70						
5	03:15	2.70	14	05:45	0.70	23	00:15	1.00			
WED	09:45	0.60	FRI	12:00	2.70	SUN	06:15	2.40			
	15:45	2.80		18:15	0.70		12:45	1.00			
	22:00	0.70					18:45	2.40			
6	04:15	2.70	15	00:30	2.70	24	01:00	1.10			
THU	10:30	0.60	SAT	06:30	0.60	MON	07:00	2.40			
	16:45	2.80		12:45	2.80		13:30	1.00			
	23:00	0.70		19:00	0.70		19:30	2.40			
7	05:00	2.70	16	01:15	2.70	25	01:45	1.10			
FRI	11:15	0.60	SUN	07:30	0.60	TUE	08:00	2.30			
	17:30	2.70		13:30	2.80		14:15	1.10			
	23:45	0.80		19:45	0.70		20:30	2.40			
8	06:00	2.70	17	02:00	2.70	26	02:45	1.10			
SAT	12:15	0.70	MON	08:15	0.60	WED	08:45	2.30			
	18:30	2.70		14:30	2.70		15:00	1.10			
				20:30	0.70		21:15	2.40			
9	00:45	0.80	18	02:45	2.70	27	03:30	1.10			
SUN	07:00	2.60	TUE	09:00	0.70	THU	09:45	2.40			
	13:15	0.70		15:15	2.70		16:00	1.10			
	19:30	2.70		21:15	0.80		22:15	2.40			

Times and Heights of High and Low Waters
Heights in Metres

New Moon 3rd
First Quarter 9th

JULY 2019

Full Moon 17th
Last Quarter 25th

<i>Date</i>	<i>Time</i>	<i>Ht</i>	<i>Date</i>	<i>Time</i>	<i>Ht</i>	<i>Date</i>	<i>Time</i>	<i>Ht</i>	<i>Date</i>	<i>Time</i>	<i>Ht</i>
1	00:45	2.60	10	02:30	0.80	19	03:45	2.60	28	04:45	1.00
MON	07:00	0.80	WED	08:45	2.70	FRI	10:00	0.80	SUN	11:00	2.50
	13:00	2.70		15:00	0.80		16:00	2.60		17:15	1.00
	19:15	0.80		21:15	2.60		22:15	0.90		23:15	2.50
2	01:30	2.70	11	03:30	0.80	20	04:15	2.60	29	05:45	0.90
TUE	07:45	0.60	THU	09:45	2.60	SAT	10:45	0.80	MON	11:45	2.60
	14:00	2.80		16:00	0.80		16:45	2.60		18:00	0.90
	20:15	0.70		22:15	2.60		23:00	0.90			
3	02:15	2.80	12	04:30	0.80	21	05:00	2.50	30	00:15	2.60
WED	08:30	0.60	FRI	10:45	2.60	SUN	11:15	0.90	TUE	06:30	0.70
	14:45	2.80		17:00	0.80		17:30	2.50		12:45	2.70
	21:00	0.60		23:15	2.60		23:30	1.00		19:00	0.80
4	03:00	2.80	13	05:30	0.80	22	05:45	2.50	31	01:00	2.70
THU	09:15	0.50	SAT	11:45	2.60	MON	12:00	0.90	WED	07:30	0.60
	15:30	2.90		18:00	0.80		18:00	2.50		13:30	2.80
	21:45	0.60								19:45	0.70
5	04:00	2.80	14	00:00	2.60	23	00:15	1.00			
FRI	10:15	0.50	SUN	06:15	0.70	TUE	06:15	2.40			
	16:30	2.90		12:30	2.60		12:45	1.00			
	22:45	0.60		18:45	0.80		18:45	2.40			
6	04:45	2.80	15	01:00	2.60	24	01:00	1.10			
SAT	11:00	0.50	MON	07:15	0.70	WED	07:00	2.40			
	17:15	2.80		13:15	2.70		13:30	1.00			
	23:30	0.60		19:30	0.80		19:30	2.40			
7	05:45	2.80	16	01:45	2.70	25	01:45	1.10			
SUN	12:00	0.50	TUE	08:00	0.70	THU	08:00	2.40			
	18:15	2.80		14:00	2.70		14:15	1.10			
				20:15	0.80		20:30	2.40			
8	00:30	0.70	17	02:15	2.70	26	02:45	1.10			
MON	06:30	2.80	WED	08:30	0.70	FRI	09:00	2.40			
	13:00	0.60		14:45	2.60		15:15	1.10			
	19:15	2.70		21:00	0.80		21:30	2.40			
9	01:30	0.70	18	03:00	2.60	27	03:45	1.10			
TUE	07:45	2.70	THU	09:15	0.70	SAT	10:00	2.40			
	14:00	0.70		15:30	2.60		16:15	1.10			
	20:15	2.70		21:45	0.90		22:30	2.40			

Times and Heights of High and Low Waters
Heights in Metres

New Moon 1st; 30th
First Quarter 8th

AUGUST 2019

Full Moon 16th
Last Quarter 24th

<i>Date</i>	<i>Time</i>	<i>Ht</i>	<i>Date</i>	<i>Time</i>	<i>Ht</i>	<i>Date</i>	<i>Time</i>	<i>Ht</i>	<i>Date</i>	<i>Time</i>	<i>Ht</i>
1	02:00	2.80	10	04:15	0.90	19	04:30	2.60	28	06:15	0.70
THU	08:15	0.50	SAT	10:30	2.60	MON	10:45	0.80	WED	12:30	2.70
	14:30	2.90		16:45	0.90		16:45	2.60		18:45	0.70
	20:45	0.60		23:00	2.50		23:00	0.90			
2	02:45	2.90	11	05:15	0.90	20	05:00	2.50	29	00:45	2.80
FRI	09:00	0.40	SUN	11:30	2.50	TUE	11:15	0.90	THU	07:00	0.50
	15:15	3.00		17:30	0.90		17:30	2.50		13:15	2.90
	21:30	0.50		23:45	2.50		23:30	1.00		19:30	0.60
3	03:30	3.00	12	06:00	0.80	21	05:45	2.50	30	01:30	2.90
SAT	10:00	0.40	MON	12:15	2.60	WED	12:00	1.00	FRI	08:00	0.40
	16:00	3.00		18:30	0.90		18:00	2.40		14:00	3.00
	22:15	0.50								20:15	0.50
4	04:30	3.00	13	00:30	2.60	22	00:15	1.00	31	02:30	3.00
SUN	10:45	0.40	TUE	06:45	0.80	THU	06:30	2.40	SAT	08:45	0.30
	17:00	2.90		13:00	2.60		12:45	1.00		15:00	3.00
	23:15	0.50		19:15	0.90		18:45	2.40		21:15	0.40
5	05:15	2.90	14	01:15	2.60	23	01:00	1.10			
MON	11:45	0.50	WED	07:30	0.80	FRI	07:15	2.40			
	17:45	2.80		13:45	2.60		13:30	1.10			
				20:00	0.90		19:45	2.30			
6	00:00	0.60	15	02:00	2.60	24	02:00	1.10			
TUE	06:15	2.80	THU	08:15	0.80	SAT	08:15	2.40			
	12:30	0.60		14:30	2.60		14:30	1.10			
	18:45	2.70		20:30	0.80		20:45	2.30			
7	01:00	0.70	16	02:45	2.70	25	03:00	1.10			
WED	07:15	2.70	FRI	09:00	0.70	SUN	09:15	2.40			
	13:30	0.70		15:00	2.60		15:30	1.10			
	19:45	2.60		21:15	0.80		21:45	2.40			
8	02:00	0.80	17	03:15	2.60	26	04:15	1.00			
THU	08:15	2.60	SAT	09:30	0.80	MON	10:30	2.50			
	14:30	0.80		15:45	2.60		16:45	1.00			
	20:45	2.60		21:45	0.80		23:00	2.50			
9	03:00	0.90	18	03:45	2.60	27	05:15	0.90			
FRI	09:30	2.60	SUN	10:15	0.80	TUE	11:30	2.60			
	15:30	0.90		16:15	2.60		17:45	0.90			
	22:00	2.50		22:30	0.90		23:45	2.60			

Times and Heights of High and Low Waters
Heights in Metres

First Quarter 6th
Full Moon 14th

SEPTEMBER 2019

Last Quarter 22nd
New Moon 29th

<i>Date</i>	<i>Time</i>	<i>Ht</i>	<i>Date</i>	<i>Time</i>	<i>Ht</i>	<i>Date</i>	<i>Time</i>	<i>Ht</i>	<i>Date</i>	<i>Time</i>	<i>Ht</i>
1 SUN	03:15 09:30 15:45 22:00	3.00 0.30 3.00 0.40	10 TUE	05:45 12:00 18:15	0.90 2.50 1.00	19 THU	05:15 11:30 17:30 23:45	2.50 0.90 2.50 1.00	28 SAT	01:15 07:30 13:45 20:00	3.00 0.40 3.00 0.40
2 MON	04:00 10:30 16:30 22:45	3.00 0.40 3.00 0.50	11 WED	00:15 06:30 12:45 19:00	2.50 0.90 2.50 0.90	20 FRI	06:00 12:15 18:15	2.50 1.00 2.40	29 SUN	02:00 09:30 15:30 21:45	3.00 0.30 3.00 0.40
3 TUE	05:00 11:15 17:30 23:45	3.00 0.50 2.90 0.60	12 THU	01:00 07:15 13:15 19:30	2.60 0.80 2.60 0.90	21 SAT	00:30 06:45 13:00 19:15	1.00 2.40 1.10 2.40	30 MON	04:00 10:15 16:30 22:30	3.10 0.30 3.00 0.40
4 WED	06:00 12:15 18:15	2.80 0.60 2.70	13 FRI	01:30 07:45 14:00 20:15	2.60 0.80 2.60 0.80	22 SUN	01:30 07:45 14:00 20:15	1.00 2.40 1.10 2.40			
5 THU	00:30 07:00 13:00 19:15	0.70 2.70 0.80 2.60	14 SAT	02:15 08:30 14:30 20:45	2.70 0.80 2.70 0.80	23 MON	02:30 09:00 15:15 21:30	1.00 2.40 1.10 2.40			
6 FRI	01:30 08:00 14:15 20:30	0.80 2.60 0.90 2.50	15 SUN	02:45 09:00 15:00 21:15	2.70 0.80 2.70 0.80	24 TUE	03:45 10:00 16:15 22:30	0.90 2.50 1.00 2.50			
7 SAT	02:45 09:00 15:15 21:30	0.90 2.50 1.00 2.50	16 MON	03:15 09:30 15:45 21:45	2.70 0.80 2.60 0.80	25 WED	04:45 11:00 17:15 23:30	0.80 2.60 0.90 2.70			
8 SUN	03:45 10:00 16:15 22:30	0.90 2.50 1.00 2.50	17 TUE	04:00 10:15 16:15 22:30	2.60 0.80 2.60 0.90	26 THU	05:45 12:00 18:15	0.70 2.70 0.70			
9 MON	04:45 11:00 17:15 23:30	0.90 2.50 1.00 2.50	18 WED	04:30 10:45 16:45 23:00	2.60 0.90 2.50 0.90	27 FRI	00:30 06:45 13:00 19:15	2.80 0.50 2.90 0.50			

Times and Heights of High and Low Waters
Heights in Metres

First Quarter 6th
Full Moon 14th

OCTOBER 2019

Last Quarter 22nd
New Moon 28th

<i>Date</i>	<i>Time</i>	<i>Ht</i>	<i>Date</i>	<i>Time</i>	<i>Ht</i>	<i>Date</i>	<i>Time</i>	<i>Ht</i>	<i>Date</i>	<i>Time</i>	<i>Ht</i>
1	04:45	3.00	10	00:45	2.50	19	00:30	0.90	28	02:45	3.00
TUE	11:00	0.40	THU	07:00	0.90	SAT	06:30	2.50	MON	09:00	0.40
	17:15	2.90		13:15	2.50		12:45	1.00		15:15	3.00
	23:30	0.50		19:30	0.90		19:00	2.50		21:30	0.40
2	05:30	2.90	11	01:30	2.60	20	01:15	0.90	29	03:30	3.00
WED	12:00	0.50	FRI	07:45	0.90	SUN	07:30	2.50	TUE	10:00	0.40
	18:00	2.80		13:45	2.60		13:45	1.00		16:00	2.90
				20:00	0.90		19:45	2.40		22:15	0.40
3	00:15	0.60	12	02:00	2.60	21	02:15	1.00	30	04:30	3.00
THU	06:30	2.80	SAT	08:15	0.80	MON	08:30	2.50	WED	10:45	0.50
	12:45	0.70		14:30	2.60		14:45	1.00		16:45	2.90
	19:00	2.70		20:45	0.80		21:00	2.40		23:00	0.50
4	01:15	0.70	13	02:45	2.70	22	03:15	0.90	31	05:15	2.90
FRI	07:30	2.70	SUN	09:00	0.80	TUE	09:30	2.50	THU	11:30	0.60
	13:45	0.80		15:00	2.60		15:45	1.00		17:45	2.80
	20:00	2.50		21:15	0.80		22:00	2.50			
5	02:15	0.90	14	03:15	2.70	23	04:30	0.90			
SAT	08:30	2.50	MON	09:30	0.80	WED	10:45	2.50			
	14:45	1.00		15:30	2.70		17:00	0.90			
	21:00	2.40		21:45	0.80		23:15	2.60			
6	03:15	1.00	15	03:45	2.70	24	05:30	0.80			
SUN	09:30	2.50	TUE	10:15	0.80	THU	11:45	2.60			
	15:45	1.10		16:15	2.60		18:00	0.80			
	22:00	2.40		22:15	0.80						
7	04:15	1.00	16	04:30	2.70	25	00:15	2.70			
MON	10:45	2.40	WED	10:45	0.80	FRI	06:30	0.60			
	16:45	1.10		16:45	2.60		12:45	2.80			
	23:00	2.40		23:00	0.80		19:00	0.70			
8	05:15	1.00	17	05:00	2.60	26	01:00	2.80			
TUE	11:30	2.40	THU	11:30	0.80	SAT	07:30	0.50			
	17:45	1.10		17:30	2.60		13:30	2.90			
				23:45	0.80		19:45	0.50			
9	00:00	2.40	18	05:45	2.60	27	02:00	3.00			
WED	06:15	1.00	FRI	12:00	0.90	SUN	08:15	0.40			
	12:30	2.50		18:00	2.50		14:30	2.90			
	18:45	1.00					20:45	0.40			

Times and Heights of High and Low Waters
Heights in Metres

First Quarter 4th
Full Moon 13th

NOVEMBER 2019

Last Quarter 20th
New Moon 27th

<i>Date</i>	<i>Time</i>	<i>Ht</i>	<i>Date</i>	<i>Time</i>	<i>Ht</i>	<i>Date</i>	<i>Time</i>	<i>Ht</i>	<i>Date</i>	<i>Time</i>	<i>Ht</i>
1	00:00	0.60	10	01:30	2.60	19	02:00	0.80	28	04:00	2.90
FRI	06:00	2.80	SUN	07:45	0.90	TUE	08:15	2.60	THU	10:15	0.60
	12:15	0.80		14:00	2.60		14:30	0.90		16:30	2.80
	18:30	2.60		20:00	0.90		20:30	2.50		22:45	0.60
2	00:45	0.80	11	02:15	2.60	20	03:00	0.80	29	05:00	2.80
SAT	07:00	2.60	MON	08:30	0.80	WED	09:15	2.60	FRI	11:15	0.70
	13:15	0.90		14:30	2.60		15:30	0.90		17:15	2.70
	19:30	2.50		20:45	0.80		21:45	2.50		23:30	0.70
3	01:45	0.90	12	02:45	2.70	21	04:00	0.80	30	05:45	2.70
SUN	08:00	2.50	TUE	09:00	0.80	THU	10:15	2.60	SAT	12:00	0.80
	14:15	1.00		15:15	2.60		16:30	0.90		18:00	2.60
	20:15	2.40		21:15	0.80		22:45	2.60			
4	02:45	1.00	13	03:30	2.70	22	05:00	0.80			
MON	09:00	2.40	WED	09:45	0.80	FRI	11:15	2.60			
	15:15	1.10		15:45	2.60		17:30	0.80			
	21:30	2.40		22:00	0.70		23:45	2.70			
5	03:45	1.00	14	04:00	2.70	23	06:00	0.70			
TUE	10:00	2.40	THU	10:15	0.80	SAT	12:15	2.70			
	16:15	1.10		16:30	2.60		18:30	0.70			
	22:30	2.40		22:30	0.70						
6	04:45	1.00	15	04:45	2.70	24	00:45	2.80			
WED	11:00	2.40	FRI	11:00	0.80	SUN	07:00	0.60			
	17:15	1.10		17:00	2.60		13:15	2.80			
	23:30	2.40		23:15	0.80		19:30	0.60			
7	05:30	1.00	16	05:30	2.70	25	01:45	2.90			
THU	11:45	2.40	SAT	11:45	0.80	MON	08:00	0.60			
	18:00	1.00		17:45	2.60		14:00	2.80			
							20:15	0.50			
8	00:15	2.40	17	00:15	0.80	26	02:30	2.90			
FRI	06:30	1.00	SUN	06:15	2.60	TUE	08:45	0.50			
	12:30	2.50		12:30	0.90		15:00	2.90			
	18:45	1.00		18:45	2.50		21:00	0.50			
9	01:00	2.50	18	01:00	0.80	27	03:15	2.90			
SAT	07:15	0.90	MON	07:15	2.60	WED	09:30	0.60			
	13:15	2.50		13:30	0.90		15:45	2.80			
	19:30	0.90		19:30	2.50		22:00	0.50			

Times and Heights of High and Low Waters
Heights in Metres

First Quarter 4th
Full Moon 12th

DECEMBER 2019

Last Quarter 19th
New Moon 26th

<i>Date</i>	<i>Time</i>	<i>Ht</i>	<i>Date</i>	<i>Time</i>	<i>Ht</i>	<i>Date</i>	<i>Time</i>	<i>Ht</i>	<i>Date</i>	<i>Time</i>	<i>Ht</i>
1 SUN	00:15 06:30 12:45 18:45	0.80 2.60 0.90 2.50	10 TUE	01:45 07:45 14:00 20:15	2.60 0.90 2.60 0.80	19 THU	02:45 09:00 15:15 21:30	0.70 2.60 0.80 2.60	28 SAT	04:30 10:45 16:45 23:15	2.70 0.80 2.70 0.70
2 MON	01:15 07:30 13:30 19:45	0.90 2.50 1.00 2.40	11 WED	02:15 08:30 14:45 20:45	2.60 0.80 2.60 0.80	20 FRI	03:45 10:00 16:15 22:30	0.80 2.60 0.80 2.60	29 SUN	05:15 11:30 17:30	2.70 0.80 2.60
3 TUE	02:00 08:15 14:30 20:45	1.00 2.40 1.10 2.40	12 THU	03:00 09:15 15:15 21:30	2.70 0.80 2.70 0.70	21 SAT	04:45 11:00 17:15 23:30	0.80 2.60 0.80 2.70	30 MON	00:00 06:00 12:15 18:15	0.80 2.60 0.90 2.50
4 WED	03:00 09:15 15:30 21:45	1.00 2.40 1.10 2.30	13 FRI	03:45 10:00 16:00 22:15	2.70 0.80 2.70 0.70	22 SUN	05:45 12:00 18:15	0.80 2.70 0.70	31 TUE	00:45 06:45 13:00 19:00	0.90 2.50 1.00 2.50
5 THU	04:00 10:00 16:15 22:30	1.10 2.40 1.10 2.40	14 SAT	04:30 10:45 16:45 23:00	2.70 0.70 2.70 0.60	23 MON	00:30 06:45 13:00 19:15	2.70 0.70 2.70 0.70	24 TUE	01:30 07:45 13:45 20:00	2.80 0.70 2.70 0.60
6 FRI	04:45 11:00 17:15 23:30	1.10 2.40 1.10 2.40	15 SUN	05:15 11:30 17:30	2.70 0.70 2.70	25 WED	02:15 08:30 14:30 20:45	2.80 0.70 2.70 0.60	26 THU	03:00 09:15 15:30 21:30	2.80 0.70 2.70 0.60
7 SAT	05:45 11:45 18:00	1.10 2.40 1.00	16 MON	00:00 06:00 12:15 18:30	0.70 2.70 0.80 2.70	27 FRI	03:45 10:00 16:15 22:30	2.80 0.70 2.70 0.60			
8 SUN	00:15 06:30 12:30 18:45	2.40 1.00 2.50 1.00	17 TUE	00:45 07:00 13:15 19:15	0.70 2.70 0.80 2.60						
9 MON	01:00 07:15 13:15 19:30	2.50 1.00 2.50 0.90	18 WED	01:45 08:00 14:15 20:15	0.70 2.70 0.80 2.60						

Times and Heights of High and Low Waters
Heights in Metres

To the High Water times at Bluff, apply the following for approximate times high water at:

Nugget Point + 30 mins

Waikawa + 7 mins

Waipapa Point - 13 mins

Oreti - 52 mins

Riverton - 1 hr 7 mins

Colac Bay - 1 hr 14 mins

Preservation Inlet - 2 hrs mins

Paterson Inlet - 38 mins

Halfmoon Bay + 15 mins