

# Sundive's Confined Water POOL Dive Plan



## **LOCATION:**

Confined water dive in the swimming pool located in the Cape Byron YHA facilities at 9-11 Byron Street with direct side access from Sundive Byron Bay.

## **DIVING PROCEDURES:**

Confined water diving. All diving is recreational to the maximum pool depth of 1.8 meters. Air supplies will be monitored during the dive and divers will exit the pool with minimum 50 bars. Entry into the pool is via the steps on the poolside unless practising specific entry skills under supervision. All pool dives are led by a Dive Master or Instructor and dive skills performed will follow the standards of: 'Sundive Refresher for Certified Divers' (document located at Sundive) or 'Standard Discover Scuba Dive' or other PADI courses according to the PADI instructor manual.

## **TASKS:**

**Dive Masters or Instructors:** Instructors to lead skill development in confined water according to PADI instructor manual skills for DSD or other dive courses in line with their certification level. DMs or Instructors may lead a refresher session for certified divers according to Sundive standard refresher plan.

**Sundive Dive Supervisor:** Agrees specific dive plan with the DM/ Instructor, checks student waivers and paperwork and monitors start and end of confined water session.

**Recreational Divers:** Follow the DM or instructor guidance for confined water dive.

## **BREATHING GAS:**

The breathing gas used will be air. Air supply will consist of diving cylinders with a maximum of 220bar starting pressure.

## **DIVE EQUIPMENT BEING USED:**

Standard recreational diving equipment consisting of but not limited to: mask & fins, compressed air cylinder and valve, buoyancy control device (BCD), primary regulator and alternate air source, submersible pressure gauge (SPG) or transmitter, depth and time monitoring device, Quick release weights system, Adequate exposure suit.

## **DECOMPRESSION MANAGEMENT (DIVE TIMES, BOTTOM TIMES AND DECOMPRESSION PROFILES):**

No decompression diving. All diving within table limits at depth lower than 2 meters.

## **FIRST AID AND OXYGEN:**

All Sundive Dive Professionals are qualified first aid, CPR and O2 providers. First aid kit and Oxygen 'D' bottles with demand valves and free flowing masks are located in the Sundive facilities.

**HAZARDS:** PHYSICAL HAZARDS: tools/equipment, slip/fall. DIVER HAZARDS: pre-dive fitness, dehydration, sunburn, fatigue, over exertion.

**RISK CONTROL:** Divers briefed to take extra care when walking to from the pool with gear. No jumping in the water from poolside. Pool safety guidelines printed on the poolside. Wear an adequate wetsuit; stay hydrated; use sunscreen, communicate any concerns to the dive guide.

## **EMERGENCY PROCEDURES:**

**Sundive Emergency Assistance Plan:** located in the Sundive office.

**EMERGENCY PHONE NUMBERS:** Emergency Services: 000

## **LOCATION OF NEAREST RECOMPRESSION CHAMBER, HOSPITAL & AUTOMATED EXTERNAL DEFIBRILLATOR (AED):**

HOSPITAL: Byron Central Hospital, 54 Ewingsdale Road, NSW 2481 +61 266399400.

AED: AEDs are present on both Sundive vessels with signage marking the location. On land AED: The Pass Cafe, The Pass, Byron Bay +61447847383; Byron Bay Surf Club, Bay St, Byron Bay +61 431 280 016

RECOMPRESSION CHAMBER: RBWH, Ground Floor, Ned Hanlon Building, Cnr Butterfield St and Bowen Bridge Road, HEASTON, QLD 4029. +61 7 364681111. 1.5 hours evacuation time.

**PLAN YOUR DIVE AND DIVE YOUR PLAN**

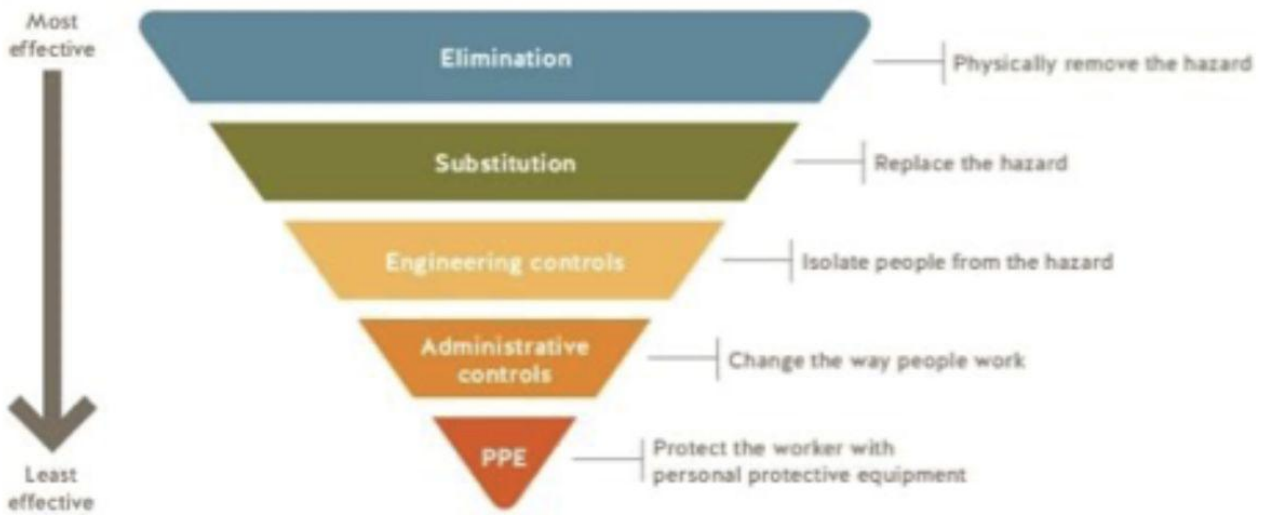
# Risk & Hazard Assessments

## Matrix of Likelihood & Consequence

	LIKELIHOOD				
CONSEQUENCE	Rare	Unlikely	Possible	Probable	Likely
Major	high	high	extreme	extreme	extreme
Moderate	moderate	moderate	high	high	exttreme
Minor	low	low	moderate	high	high
Insignificant	low	low	low	moderate	high

## Hierarchy of Controls

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## RISK ASSESSMENT: Diving & Snorkelling

RISK ASSESSMENT: SCUBA DIVING & SNORKELLING					
RISK	LIKELIHOOD	CONSEQUENCE	RISK LEVEL WITHOUT CONTROLS	CONTROLS IN PLACE	CONTROLLED RISK LEVEL
<b>Permanent Risk Factors - always valid for the standard dive plan and addressed by Sundive Procedures, the standard dive plan and briefing.</b>					
Scuba Diving: Risk of DCI or other complication due to missed decompression/nitrogen build up.	Possible	Major	Extreme	No Deco diving, Divers and Dive Workers to follow Padi standards and recreational dive plan. Dive plan of 18m/max 50 mins with 1hour + surface interval makes it impossible to go to deco even without paying attention. O2 available on board for immediate treatment.	High
Scuba Diving: General risks of scuba diving	Possible	Major	Extreme	Risks minimized by following PADI standards.. All certified divers checked for certification and required to undertake a refresher if not dived for longer than 2 years. All courses operated under the guidance of an instructor following a dive plan based on Padi instructor manual standards.	High
Scuba Diving: Risk of missing person	Possible	Major	Extreme	Safety log logging of divers leaving and coming back to the boat. Strict PADI buddy pair protocol enforced. Lost buddy procedures part of the dive plan and briefed before each dive. Solo diving not permitted.	High
Scuba Diving: Risk of equipment failure	Possible	Major	Extreme	Sundive maintenance of rental BCDs and Regulators in line with manufacturer specifications. Individual customer check of full gear before loading on the boat under guide supervision. Buddy check before going in the water. Strict buddy pair diving to handle any issue underwater. All divers equipped with secondary octopus.	High
Scuba Diving/ Snorkeling : Risk of injury from regularly encountered marine life/corals ( jellyfish, scorpionfish, lionfish, sea urchins, sharp corals etc)	Possible	Moderate	High	Strict NO touch policy. Clear briefing to not touch any creature/coral and highlighting of possible hazards. Full length wetsuits provided to protect from stings.	Moderate
Scuba Diving/ Snorkelling Risk of Shark attacks	Rare	Major	High	Diving aborted in case of dangerous shark sightings at Julian Rocks. Always surface on a mooring line or close to the Rocks if drifting.	High
Scuba Diving/Snorkeling Risks related to cold water temperature in Winter ( hypothermia)	Unlikely	Moderate	Moderate	Temperatures at Julian Rocks are not extreme. Appropriate rental wetsuit and extra vest provided for Winter diving conditions at 18-21 degrees. Return to shop for surface interval allows to warm up between dives.	Low
Snorkeling/Freediving: Risk of shallow water blackout	Possible	Major	Extreme	Only certified freedivers allowed to freedive with a buddy or under instructor supervision.	High
<b>Weather dependent factors - can change at every dive - Risk management choices made at the dive site/during the dive.</b>					
Risk of currents - causing divers to get lost / overhexert /panic	Probable	Major	Extreme	If extreme current abort the diving. If very strong current in the snorkeling area cancel snorkeling. If strong/moderate current diving can proceed but dive plan will be adjusted to dive with the current and potentially plan to drift dive and be picked up downcurrent.	High
Risk of low visibility - causing divers to get lost / overhexert /panic	Probable	Major	Extreme	If visibility below 2 meters abort the diving. If low visibility 2-4 meters extra care to be taken to keep the group together. If known before going diving smaller dive groups ( max 4 divers) may be planned. Dive plan to be limited to a closer distance and returning to the mooring line. Dive guides to carry a torch in low visibility.	High
Risk of rough surface conditions (waves/swell )	Probable	Moderate	High	If very rough surface conditions cancel snorkeling. If surface conditions moderately rough limit to more confident snorkelers. Diving will remain viable if conditions are good enough to take a boat out. In case of rough surface conditions plan dives to surface at at a mooring line and take extra care returning to the boat. Divers may remove gear in the water and pass it on before stepping up the ladder for extar safety.	Moderate



## RISK ASSESSMENT: Transfer from Dive Shop to Dive site

RISK ASSESSMENT: Transfer from Dive Shop to Dive site (car/boat operations)					
RISK	Likelihood	Consequence	Risk level without controls	Controls in Place	Controlled Risk level
<b>Permanent Risk Factors - always valid for the standard dive plan and addressed by Sundive Procedures, the standard dive plan and briefing.</b>					
Risk of injury to divers/staff when launching/retrieving the boat at the beach/in the surf	Possible	Moderate	High	Rules stipulated by NPWS for The Pass must be followed and directed by Master of vessel. Adequate staff training and passenger briefings conducted prior to launch/beaching. Divers briefed to stay on the beach until the boat is in a safe stable place to get on. Staff to help customers get on board. Everyone briefed to stay clear of the back of the boat where the propeller is in case of sudden movement due to a wave. Staff well trained to handle launch and retrieval. If sea conditions are too rough activity will be aborted.	High
Risk of injury to surfers/ beachgoers when launching/retrieving the boat at the beach/in the surf	Possible	Major	Extreme	Rules stipulated by NPWS for The Pass must be followed and directed by Master of vessel. Staff to clear the way keeping people at safe distance for the boat to get in the water at the beach. Skipper sounds the horn when launching through the surf and very carefully checks for a clear way safe of surfers. Launch is aborted and restarted if any risk of colliding with a surfer trajectory. Coming back in same procedure is followed to re enter without colliding with surfers.	High
Man Overboard	Possible	Moderate	High	Adequate staff training and passenger briefings conducted prior to launch. Passengers to remain seated with their feet on the floor and limbs inside the vessel for the duration of travel and told to hold point of contact at all times of travel. Mob drills conducted as part of safety meetings. Skipper speed maintained to Marine standards & adjusted to conform with conditions. Conditions are assessed at the time of travel and deemed safe by judgement of the master of the vessel.	Moderate
Incapacitated coxwain/uncontrolled boat	Possible	Major	High	If captain incapacitated at a mooring staff will call for help. If while the boat is moving at least one staff on board trained to handle basic boat controls (direct the boat/stop the engine/anchor/moore). Boat to be stopped in the bay out of the surf line and help to be called.	High
Risk of Fire	Unlikely	Major	Extreme	Minimal quantities of inflammable liquids carried. No enclosed places or ignition sources. Fire bucket and extinguisher onboard all vessels. Strictly no smoking on board.	High
Risk of vessel capsize	Unlikely	Major	High	Vessel only operated in suitable sea conditions based on Vessel Master experienced assessment. Marine operating standards followed.	Moderate
Risk of injury from falling items/ cylinders on board	Possible	Moderate	Moderate	Items secured overhead by adequate supports and zippers/bungees are kept in good condition and replaced when faulty. Loose items are secured.	Low
Risk of slipping/tripping/falling on the boats	Possible	Minor	Moderate	Mats are supplied and replaced when torn. Staff maintain mats are placed flat and even. Rubber grip applied to slippery surfaces. Sharp edges of the vessel are covered for protection. Dive gear and vessel equipment secured and off walkways.	Low
Risk of injury from bow or propeller strike	Possible	Major	Extreme	Skipper speed maintained to Marine standards & adjusted to conform with conditions. Conditions are assessed at the time of travel and deemed safe by judgement of the master of the vessel. Adequate staff training and passenger briefings. Motor is turned away from ladder and engine is off for collecting boarding passengers.	High
Risk of sea sickness	Likely	Minor	High	Water provided onboard and at the Dive Center. Short trips of maximum 1 hour from shore. Passengers are informed of conditions to make an adequate decision if they require sea sickness medication (not provided by Sundive).	Moderate
Risk of car accident with vans/trailers/ boats	Possible	Major	Extreme	Vehicles are fitted with audible devices (beepers) to signal when reversing and supervised by staff. Vehicles are operated slowly and only by licenced persons. Drivers to follow RTA guidelines and speed limits / Cape Byron Trust Code of Conduct followed. Seat belts to be worn at all times.	High
<b>Additional risk assessment factors</b>					
Increased risk due to higher than usual number of people/surfers at the pass				Help of surf lifeguard or additional Sundive staff at the beach to facilitate creating a clear safe way for boat to get back to the beach.	
Increased risk due to challenging sea conditions ( Swell / Wind / waves )				If wind is stronger than 25Kts activity will be cancelled as mooring is deemed unsafe. Swell and wind level will be assessed by the vessel master in combination with the other factors and will impact the dive plan and choice of dive site. The activity may be cancelled by the vessel master if he deems the conditions unsafe.	

## RISK ASSESSMENT: Equipment

<b>RISK ASSESSMENT: Equipment</b>					
<b>RISK</b>	<b>Likelihood</b>	<b>Consequence</b>	<b>Risk level without controls</b>	<b>Controls in Place</b>	<b>Controlled Risk level</b>
Regulator Second stage Malfunctioning underwater - hard to breathe regulator or freeflow underwater - regulators are sensitive and could malfunction even if well maintained if accidentally banged or not well rinsed.	Possible	Major	Extreme	Regulators checked before every use by the customer both at the dive shop and before jumping in the water as part of safety check. Sundive maintenance program to minimize occurrence of issues. Use of alternate air source or buddy system in case of second stage failure	High
Gauges Failure Underwater - inability to read remaining air pressure/dive depth	Possible	Major	Extreme	Gauge checked before every use by the customer both at the dive shop and before jumping in the water as part of safety check. Buddy system: In case of malfunctioning underwater signal to buddy and surface to abort the dive or switch to spare gear.	High
Pressure gauge giving wrong reading - accidentally finishing the air while still at depth	Possible	Major	Extreme	Buddy system - always dive in buddy pair and in case of out of air situation practice air sharing using the buddy's alternate air as per Padi standards.	High
BCD malfunctioning underwater - impossible to control buoyancy	Possible	Major	Extreme	BCDs checked before every use by the customer both at the dive shop and before jumping in the water and buoyancy check while descending. Sundive maintenance program to minimize occurrence of issues. Buddy system to do a controlled ascent while buddy controls the buoyancy for both.	High
Mask/fin straps break underwater - loss of mask or fins underwater	Possible	Major	Extreme	Check state of straps as the gear is put on the boat and before jumping in the water. Replace all straps at the first sign of wear and tear. Safely ascend and abort device or collect alternate gear in case of occurrence.	High