

# British Divers Marine Life Rescue

## Risk Assessment



**Risk Assessment Title: Cetacean response**

**Risk Assessment Number: BDMLR/Cet**

**Date: 12/05/24**

**Date of Review 12/05/25**

**Risk Assessment Author: D. Jarvis**

How this Risk Assessment works;

Risk is a combination of the potential accident *SEVERITY* which may be in terms of injury, reputation or economic damage (i.e. resulting in death, serious or minor injury etc) and the *LIKELIHOOD* of that accident occurring (i.e. very unlikely up to almost certain). The risks are calculated using the 5 gate risk matrix below where hazards are identified and an initial risk is calculated. Control Measures are then put in place to eliminate, reduce or mitigate the initial risk and this is then recalculated as the residual risk. This residual risk should be considered as **ALARP (As Low As Reasonably Practical)**.

This Risk Assessment should be considered as a generic assessment and has tried to take into account as many hazards as can be considered foreseeable within our threshold of operations. Safety is the responsibility of each individual attending an incident and a site specific Risk Assessment should be carried out for each task required to be undertaken.

Numerical Value	Likelihood	Severity
1	Very Unlikely	Negligible - Minor injury with no time off work
2	Unlikely	Minor - injury and/or up to 3 days off work
3	Likely	Moderate - injury resulting in over 3 days off work
4	Very Likely	Major - major injury resulting in incapacitation or long term absence
5	Certain	Catastrophic - death

Likelihood	1	2	3	4	5
5	5	10	15	20	26
4	4	8	12	16	20
3	3	6	9	12	15
2	2	4	6	8	10
1	1	2	3	4	5
	1	2	3	4	5

Severity

Task	Hazard	Who is at Risk and How	L	S	IR	Mitigation	L	S	RR
Travel to/from incident	Vehicle accident due to: <ul style="list-style-type: none"> <li>➤ Other vehicles</li> <li>➤ Weather conditions</li> <li>➤ Road conditions</li> <li>➤ Over speeding</li> <li>➤ Pedestrians</li> </ul>	Attending Medics and other road users. Injury or death through road traffic accident.	2	5	10	Drive defensively. Drive within limits of weather and road conditions. Do not exceed speed limit. Be aware of pedestrians and other road users.	2	3	6
			3	5	15		2	2	4
			3	4	12		3	3	6
			4	5	20		1	4	4
			2	5	10		1	5	5
	Breakdown	Attending Medics. Injury through accident cause by breakdown, Exposure caused by stranding in poor weather conditions.	3	1	3	Ensure vehicle is properly maintained. Contact Coordinators or road rescue bodies to assist with safe recovery.	1	1	1
	Getting lost	Attending Medics. Injury or exposure due to vehicle getting stuck or in unsuitable locations.	4	2	8	Plan route or use satnav.	2	2	4

Task	Hazard	Who is at Risk and How	L	S	IR	Mitigation	L	S	RR
Access/egress to location	Falling from height due to: <ul style="list-style-type: none"> <li>➤ Access via steep paths</li> <li>➤ Access via vertical descent</li> <li>➤ Access via steep slope</li> <li>➤ Access over large rocks</li> </ul>	Attending Medics, other agencies, local volunteers, vet, public. Risk of injury and death, especially head and spinal injury or fractures.	3	4	12	If specialist access required (i.e. abseil) only trained personnel should attempt in accordance with training. Ensure helmets and other PPE are used. Utilise Coastguard, Fire and Rescue Service or cliff rescue assistance. Maintain 3 points of contact on unassisted climbs and slopes.	2	3	6
			4	5	20		1	5	5
			4	4	16		2	3	6
			4	3	12		2	3	6
	Slips/trips due to: <ul style="list-style-type: none"> <li>➤ Wet grass</li> <li>➤ Wet rocks</li> <li>➤ Soft mud</li> <li>➤ Loose sand</li> </ul>	Attending Medics, local volunteers, other agencies, vet, public. Injury, including fractures, contusions and head injuries through falls and collision with other objects.	4	4	16	Ensure suitable, supporting footwear is worn, check area for most suitable route and remove/avoid trip hazards, ensure helmets are worn if rocks are a	2	2	4
			4	5	20		2	3	6
			3	3	9		2	2	4
			3	3	9		2	2	4
			4	4	16		2	3	6

	<ul style="list-style-type: none"> <li>➤ Loose shingle</li> <li>➤ Ice</li> </ul>		4	4	16	danger. ensure suitable visibility.	2	3	6
	Stuck in substrate: <ul style="list-style-type: none"> <li>➤ Soft Sand</li> <li>➤ Soft mud</li> </ul>	Attending Medics, other agencies and local volunteers, vet, public. Soft tissue injury in pulling free, exposure and risk of drowning if quicksand or stuck in a tidal area.	3 4	4 5	12 20	Use specialist support from Fire and Rescue Service or Coastguard in affected areas, consider specialised vehicles and buddy system to ensure no one is unaccounted for, temporary walkway/boards for traversing dangerous substrates. Consider placing a suitable cordon to limit access to dangerous areas for public.	1 1	3 4	3 4
	Manual handling injuries	Attending Medics, other agencies, local volunteers, vet, public. Soft tissue injury, back injuries and falls from overloading	3	3	9	Use correct manual handling techniques. Ensure sufficient team members for lifting and/or use of mechanical aids.	2	2	4

Task	Hazard	Who is at Risk and How	L	S	IR	Mitigation	L	S	RR
Assessment/ first aid of the cetacean	Conditions on site: <ul style="list-style-type: none"> <li>➤ Heavy surf</li> <li>➤ Under currents</li> <li>➤ Substrate</li> <li>➤ Tidal conditions</li> <li>➤ Water temperature</li> <li>➤ Wind chill</li> <li>➤ Visibility</li> </ul>	Attending Medics, other agencies, vet, local volunteers, public. Risk of drowning, hypothermia and exposure and injury from collisions in surf.	4	4	16	Rescue boat cover if possible; rescue ropes to be available.	3	2	6
			3	4	12	Water entry only if appropriate	2	2	4
			4	3	12	water suit and lifejacket are correctly worn.	3	2	6
			3	4	12	Buddy system and beachmaster to watch for signs of exposure/hypothermia and	2	1	2
			5	4	20	volunteers to be rotated as often as suitable to allow warming up.	4	2	8
			4	3	12	Consider requesting lighting and public management support from Coastguard.	3	2	6
2	4	8		2	2	4			

	<p>Cetacean physical threats:</p> <ul style="list-style-type: none"> <li>➤ Bites</li> <li>➤ Tail strike</li> <li>➤ Weight</li> <li>➤ Forcible dislodging of rocks and substrate by animal</li> </ul>	<p>Attending Medics, local volunteers, other agencies, vet, public. Injury, including fractures, contusions and head injuries, by crush, bite and direct application of force.</p>	1	4	4	<p>Use sheets/aids to open mouth for inspections.</p> <p>Keep personnel clear of tail, mouth and sides of body, mark danger areas on ground.</p> <p>Cordon area and keep non-essential personnel out of danger.</p>	1	3	3
			4	5	20		2	3	6
			4	4	16		2	3	6
			3	5	15		2	3	6
	<p>Cetacean biohazard threats:</p> <ul style="list-style-type: none"> <li>➤ Breath</li> <li>➤ Bodily fluids</li> <li>➤ Parasites</li> </ul>	<p>Attending Medics, other agencies, local volunteers, vet, public. Zoonotic infections from inhalation of breath or through contact with bodily fluids. Parasites are not a risk in themselves but the distraction caused may increase risk of other hazards.</p>	5	5	20	<p>FPP3 face mask to be worn at all times around live animals, Eye protection for personnel working near the blowhole.</p> <p>Disposable gloves and barrier suit (dry/wetsuit sufficient) to be worn at all times and all non disposable gear to be disinfected after incident.</p> <p>Eating and drinking prohibited around the animals and a safe welfare area to be demarcated at a suitable distance with cleaning facilities (i.e. hand sanitizer).</p> <p>All personnel to be briefed on the risks of zoonotic infection and when to seek further medical attention as well as BDMLR infection letter.</p> <p>Area to be cordoned off and only trained and equipped personnel to enter the area.</p> <p>For parasites (e.g.: whale lice) use salt water for animal care rather than fresh wherever possible.</p>	2	5	10
			3	5	20		2	5	10
			2	1	2		1	1	1

Task	Hazard	Who is at Risk and How	L	S	IR	Mitigation	L	S	RR
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<p>Beach activities and incident control</p>	<p>Managing public and media:</p> <ul style="list-style-type: none"> <li>➤ Interference</li> <li>➤ Emotional response</li> <li>➤ Response to euthanasia</li> <li>➤ Threat of violence/abuse <ul style="list-style-type: none"> <li>➤ Proximity</li> </ul> </li> </ul>	<p>Attending Medics, other agencies, vet.</p> <p>Risk of reputational damage, false media claims, emotional attack on attending volunteers, physical threats and distraction which could lead to further endangerment.</p>	<p>5 5 4 3 4</p>	<p>33 3 3 2</p>	<p>15 15 12 9 8</p>	<p>Barriers and cordons, support from uniformed agencies especially Coastguard and Police.</p> <p>Media liaison and Head Office to keep media and public informed, press and public update statements – advance notification of euthanasia/management of expectation.</p>	<p>3 3 2 2</p>	<p>2 2 3 2</p>	<p>6 6 6 4</p>
	<p>Rescue team management:</p> <ul style="list-style-type: none"> <li>➤ Communication</li> <li>➤ Missing team member</li> <li>➤ Personnel injury</li> </ul>	<p>Attending Medics, local volunteers, other agencies, vet.</p> <p>Confusion/missed communication leading to increase in likelihood or severity of other hazards. Serious injury to medic going unrecognized due to unnoticed absence.</p>	<p>5 5 3</p>	<p>3 5 4</p>	<p>15 25 12</p>	<p>Appoint a beachmaster, log in/out all personnel in cordon area and regular head count.</p> <p>Identify first aiders and first aid kits and ensure these are identified to all personnel.</p>	<p>1 2 2 2</p>	<p>3 3 3 3</p>	<p>3 6 6 6</p>
	<p>Rescue team welfare:</p> <ul style="list-style-type: none"> <li>➤ Drowning</li> <li>➤ Exhaustion</li> <li>➤ Hypothermia</li> <li>➤ Dehydration</li> <li>➤ Heatstroke</li> <li>➤ Hunger</li> <li>➤ Sanitation</li> <li>➤ Emotional stress</li> <li>➤ Personal medical issues</li> </ul>	<p>Attending Medics, other agencies, local volunteers, vet.</p> <p>Around water, risk of drowning risks around exposure to elements and of extreme emotional responses.</p> <p>Further risks of personnel overworking and not taking time to eat/drink and this may exacerbate other health conditions (i.e. diabetes).</p>	<p>4 4 3 3 3 2 2 4 3</p>	<p>5 3 4 4 4 3 3 3 5</p>	<p>20 12 12 12 12 6 6 12 15</p>	<p>All personnel entering or working over water must wear suitable protective suits and lifejacket.</p> <p>Rescue boat present where possible.</p> <p>Personnel should be rotated regularly to prevent tiredness, food and water and safe area to rest should be provided along with access to toilet facilities wherever possible.</p> <p>Personnel that need to deal with emotions should be respected and ability to discuss issues/talk about events encouraged after the end of incident/additional check up.</p> <p>Request that any additional health issues disclosed to beachmaster to allow requirements to be built into</p>	<p>2 2 2 3 2 3 2 3 3</p>	<p>5 2 3 2 3 2 2 2 2</p>	<p>10 10 6 6 6 6 4 6 6</p>

						rota/schedule.			
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Task	Hazard	Who is at Risk and How	L	S	IR	Mitigation	L	S	RR
Fitting and removing whale pontoons	Manual handling injury	Attending Medics, local volunteers, vet. Soft tissue injury, back injuries and falls from overloading.	3	3	9	Use correct manual handling techniques. Ensure sufficient team members for lifting and appropriate briefing in use of pontoons is given prior to use.	2	2	4
	Rolling whale: ➤ Trapped limbs ➤ Crush injury	Attending Medics, local volunteers, vet. Fractures, contusions and crush injury possible further soft tissue damage from wrenching.	4 4	4 4	16 16	Clear plan agreed beforehand, lead Medic gives clear verbal communication. Team spotter to control rolling. Check surrounding substrate for pinch points.	2 2	3 3	6 6
	Trapped hands/digits on carabiner clips	Attending Medics, local volunteers, vet. Open cuts/contusions which impact the medics ability to use hands and act as possible infection site for zoonotic infections.	3	2	6	Use of Neoprene gloves, care taken in operating carabiners, loud clear communication and planning.	2	1	2
	Compressed air cylinder: ➤ Cylinder explosion ➤ Pressurised hose ➤ Freezing pillar valve ➤ Excessive noise level	Attending Medics, local volunteers, vet. Risk of serious injury or death from explosion, air embolism through careless use of pressurised hoses. Freeze injury to hands through contact with frozen valve and damage to hearing and ears of human and cetacean.	3 3 5 4	5 5 2 2	15 15 10 8	Care taken in carriage and storage of cylinders throughout incident (e.g.: carry with two hands), especially ensuring the valve is not damaged, cylinders are not allowed to drop, fall over or be washed out. Do not direct hose towards people Neoprene gloves to be worn, do not touch metal hose parts with bare skin. Open valve slowly and build up, ensuring hose is held securely.	2 1 2 3	5 5 2 2	10 5 4 6

						All team members to be prepared for reaction to noise from animal.			
	Over pressurizing pontoons	Attending Medics, local volunteers, vet. Risk of injury from explosive bursting of pontoon	4	3	12	Manually check to ensure pontoons are only inflated until firm. If hot/sunny day recheck to determine if air needs to be taken out.	1	3	3

Task	Hazard	Who is at Risk and How	L	S	IR	Mitigation	L	S	RR
Fitting and removing whale pontoons	Manual Handling Injury	Attending Medics, local volunteers, vet. Soft tissue injury, back injuries and falls from overloading.	3	3	9	Use correct manual handling techniques. Ensure sufficient team members for lifting and appropriate briefing in use of pontoons is given prior to use.	2	2	4
	Rolling Whale: ➤ Trapped limbs ➤ Crush injury	Attending Medics, local volunteers, vet. Fractures, contusions and crush injury possible further soft tissue damage from wrenching.	4 4	4 4	16 16	Clear plan agreed beforehand, lead Medic gives clear verbal communication. Team spotter to control rolling. Check surrounding substrate for pinch points.	2 2	3 3	6 6
	Trapped hands/digits on carabiner clips	Attending Medics, local volunteers, vet. Open cuts/contusions which impact the Medics ability to use hands and act as possible infection site for zoonotic infections	3	2	6	Use of Neoprene gloves, care taken in operating carabiners, loud clear communication and planning	2	1	2
	Compressed air Cylinder: ➤ Cylinder Explosion ➤ Pressurised hose ➤ Freezing pillar valve ➤ Excessive noise level	Attending Medics, local volunteers, vet. Risk of serious injury or death from explosion, air embolism through careless use of pressurised hoses. Freeze injury to hands through contact with frozen valve and damage to hearing and ears of human and cetacean.	3 3 5 4	5 5 2 2	15 15 10 8	Care taken in carriage and storage of cylinders throughout incident (e.g.: carry with two hands), especially ensuring the valve is not damaged, cylinders are not allowed to drop, fall over or be washed out. Do not direct hose towards people Neoprene gloves to be worn, do not touch metal hose parts with bare skin.	2 1 2 3	5 5 2 2	10 5 4 6

						Open valve slowly and build up, ensuring hose is held securely. All team members to be prepared for reaction to noise from animal.			
	Over pressurizing pontoons	Attending Medics, local volunteers, vet. Risk of injury from explosive bursting of pontoon.	4	3	12	Manually check to ensure pontoons are only inflated until firm. If hot/sunny day recheck to determine if air needs to be taken out.	1	3	3

Task	Hazard	Who is at Risk and How	L	S	IR	Mitigation	L	S	RR
Lifting cetacean using stretcher or tarpaulin	Manual Handling Injury	Attending Medics, local volunteers, vet. Soft tissue injury, back injuries and falls from overloading	3	3	9	Use correct manual handling techniques. Ensure sufficient team members for lifting and appropriate briefing in use of pontoons is given prior to use.	2	2	4
	Tripping/Slipping	Attending Medics, local volunteers, vet, other agencies and public. Injury, including fractures, contusions and head injuries through falls and collision with other objects. Crush injury from carried weight being dropped.	4	4	16	Ensure suitable, supporting footwear is worn, check area for most suitable route and agree beforehand, remove/avoid trip hazards, ensure helmets are worn if rocks are a danger. ensure suitable visibility.	2	2	4
	Hazardous breath	Attending Medics, local volunteers, vet. Risk of zoonotic infection from inhalation.	4	4	16	FPP3 masks to be worn around the animal, visors if standing/holding the head. Do not lean directly over the blowhole.	2	2	4
	Trapping of fingers	Attending Medics, local volunteers, vet. Pinch injury, possible fracture or dislocation of digits.	3	3	15	Care taken in hand placement, especially if using rope to reinforce tarpaulin Avoid placing fingers between poles.	2	2	4



Task	Hazard	Who is at Risk and How	L	S	IR	Mitigation	L	S	RR
Restoring equilibrium	Impact from Tail	Attending Medics, local volunteers, vet. Fracture, head injury, soft tissue damage, potential unconsciousness in water and concussion.	4	5	20	Do not stand within striking distance of flukes, move aside with speed when releasing the animal. Ensure animal remain upright as much as possible to restrict danger area.	2	4	8

Task	Hazard	Who is at Risk and How	L	S	IR	Mitigation	L	S	RR
Refloating cetacean	Water entry	Attending Medics, local volunteers, vet. other agencies. Drowning.	4	5	20	Coastguard presence to monitor water safety, rescue boar and throwlines in place. All personnel working on or near water must be in properly worn protective suit ( Dry or wetsuit) and be wearing lifejackets.	2	5	10
	Cold water	Attending Medics, local volunteers, vet. Hypothermia, cold shock.	5	4	20	Dry suits, wet suits or survival suits to be worn correctly. Personnel to be rotated to minimize time in water, rest and recovery area to allow time to rewarm. Buddy system to maintain contact and checks on other personnel	3	2	6
	Hazardous breath	Attending Medics, local volunteers, vet. Risk of zoonotic infection from inhalation.	4	4	16	FPP3 Masks to be worn around the animal, visors if standing/holding the head. Do not lean directly over the blowhole.	2	2	4
	Impact from tail	Attending Medics, local volunteers, vet.	4	5	20	Do not stand within striking distance of flukes, move aside with speed when releasing the animal. Ensure	2	4	8

		Fracture, head injury, soft tissue damage, potential unconsciousness in water and concussion.				animal remain upright as much as possible to restrict danger area.			
	Entanglement in Equipment	Attending Medics, local volunteers, vet. Pinch injury, possible fracture or dislocation of digits.	3	3	15	Care taken in hand placement, especially if using rope to reinforce tarpaulin Avoid placing fingers between poles.	2	2	4

Task	Hazard	Who is at Risk and How	L	S	IR	Mitigation	L	S	RR
Euthanasia	Gunshot	Attending Medics, local volunteers, vet, other agencies, public. Direct gunshot injury, ricochet shot.	3	5	15	Only licensed marksmen to undertake activity. Cordon extended by uniformed services as required and all attendees to move as directed by marksman. Guidelines in MMM Handbook to be utilised.	2	5	10
	Drug based euthanasia	Attending Medics, local volunteers, vet. Poisoning/lethal injection.	3	5	15	Veterinary procedure only, care to be taken in selecting accessible injection site. Drug use guidelines in MMM Handbook to be followed and where available antidote to be prepared and ready before preparation of euthanasia injection.	2	5	10
	Other methods	Attending Medics, local volunteers, vet, other agencies, public. Full scope unknown but may involve other explosive or ballistic risks and other harmful chemical options.	4	5	20	Likely to be a specialist operation so prepared by trained operatives. However specific dynamic risk assessments would need to be carried out for any alternative euthanasia methods.	-	-	-