

## Module objectives

This Theory module introduces students to the background knowledge needed to lead other snorkel divers as a manager and lead snorkel diver

## Achievement targets

At the end of this module students should:

- Understand the role of the Snorkel Dive Manager
- Understand trip planning
- Understand what different qualification allow snorkel divers to do
- Understand how to plan and deliver a brief
- Understand how to allocate shore cover
- Understand communications
- Understand how to identify snorkel sites
- Understand the impact of the weather
- Understand the impact of tides
- Understand the impact of sea conditions
- Understand equipment requirements
- Understand how to allocate buddy pairs
- Understand how to plan to handle emergencies

## Additional visual aids needed

- dive guides, maps, charts, tide tables

## Module content

This module considers the Understanding of the role of the Snorkel Dive Manager

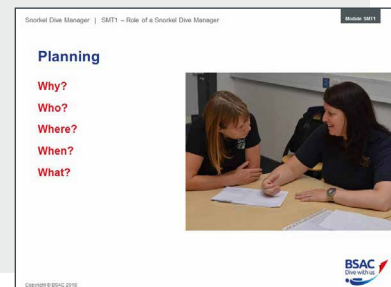


### The role of the Snorkel Dive Manager

- **Introduction**  
As a SDM your role is to plan the diving activities and put into place all of the actions needed to ensure they can run safely and enjoyably. While you don't need to do everything yourself you should have a handle on all of the activities before, during and after the snorkel diving.

### Trip Planning

Understand that dive planning considers five main areas; the dive objectives, the divers involved, the proposed dive site, the date/time to dive, and extra equipment needed to support the objectives



- **Why?**  
What is the purpose of the trip? To visit a specific location? To achieve some training? To take a photograph.
- **Who?**  
Who will be going? What restrictions does this put on the sites we can access? Do they have any particular requirements? Adults, children, families, new snorkel divers, experienced snorkel divers, people wanting to learn.
- **Where?**  
Where do you want to go? Is there a particular location in mind or any location that will allow the Why to be satisfied? Who is the planned location suitable for? Sea or lake? New site or somewhere familiar? Somewhere close or a long way off?
- **When?**  
Date and time? Will this be particularly busy (bank holiday or school holidays), is it a week day and restricted to those that are available? Will there be weather and temperature implications?
- **What?**  
What are the other considerations?

## Who - Qualifications

- **Snorkel Diver Levels**

What qualifications do those coming have? Does this restrict the type of snorkel dives you can aim to do? Or do they have particular requirements in terms of aims to do training? Alternatively are you hoping to visit a particularly challenging site and need to restrict attendance to those qualified?

If a site has been determined by the snorkel dive manager to be sheltered water then experience snorkelling for new comers and training for unqualified snorkel divers may be possible under adequate supervision from a snorkel instructor.

If more adventurous snorkelling is planned then minimum qualifications and competencies should be made clear from the start so that only those capable are permitted on the trip.

- **Safety Training**

Do you have sufficient safety trained attendees or do you need to encourage other more experienced snorkel divers to attend?

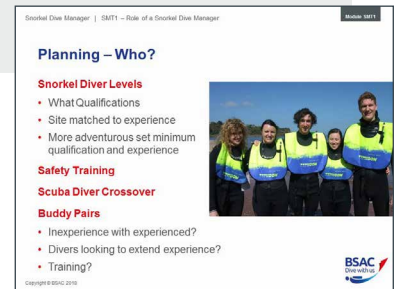
- **Scuba Diver Crossover**

If there are attendees with Scuba qualifications or qualifications from other agencies what are they qualified to do and does this fit in with your planning?

- **Buddy Pairs - Who to pair with who?**

Consider all of the options:

- Are there inexperienced snorkel divers who need an experienced buddy?
- Are there snorkel divers wanting to extend their experience together?
- Does anyone want to snorkel with an instructor to complete training?



## Where - Snorkel Sites

- **Features**

- Reefs
- Wrecks
- Rivers
- Quarries and lakes



- **Use of OS Maps / Charts**  
Look at charts and maps of areas you want to visit, identify interesting features, such as walls, interesting topography.
- **Identifying new sites**  
Talk to other snorkel divers, look at dive guides and carry out research on the internet. Identify possible areas of interest.
- **Entry / exit, depth**  
Once you have ideas about the possible sites look at the other logistics. Can you access the site from the shore – if so can you enter and exit the water safely? Do you need a boat? Is there a skipper or launch facilities locally? How deep is the site? Does this impact on who the activity will be suitable for and the equipment needed?

## When - Weather

For sea and some lake diving, the past, current and future weather situation needs to be considered and its effects on a dive site.



- **Effects of wind**
  - Wind generates waves and sea swell
  - The height of the waves and swell depend on the direction from which the wind has been blowing. If the wind has been blowing over open sea towards the land, the wave height could be high, especially as the waves reach shallower depths and begin to break. Quite often, on a sunny calm day, the sea swell will be quite big. This is due to the effects of past wind much further out to sea, but its effects are still felt after the wind has decreased. If the wind is blowing off the land, the sea around the coastline close to shore may be protected, but further out to sea the conditions could be dangerous for a small boat
  - The height of waves depends on the wind's strength - the stronger the wind the higher the waves
  - The effects of winds and waves can affect underwater visibility
  - Dive sites closer to coastlines are particularly prone to the effects of wind and waves. The waves on reaching shallower ground, may cause a groundswell, which stirs up the seabed. Breaking waves will cause more water turbulence and reduction of visibility
- **Rain / Fog**
  - Both can drastically reduce the surface visibility and compromise safety by

increasing the risk of boat and diver separation

## When - Weather (2)

- **Temperature**

Not only does the weather affect the water temperature but surface temperatures can also have an impact on the comfort of the dive group

- Hot weather can cause divers to overheat, leading to hyperthermia. Divers will need to be reminded about constant fluid intake to prevent dehydration and protection from the sun
- Cold weather and wind can create wind chill especially if diving from boats.
- Planning may highlight the need for extra thermal protection on the surface or underwater to prevent hypothermia



## When - Tides

- **Finding Flow Rate**

If diving a site in tidal waters, tidal flow information can also be found on a chart.

This includes the speed and direction of currents that can be expected in the general area of the site during the rise and fall of the tide on the dive day

- **Time of the least water movement**

Looking at the same dive site used to calculate the depth, the dive plan is to do the dive with the least current possible, slack water

- **Tidal Diamond**

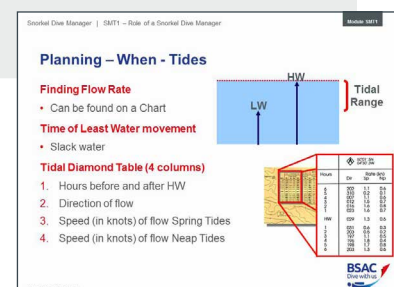
Close to the dive site is a diamond shape with the letter A - known as a tidal diamond

- **Tidal Diamond Table**

Looking at the chart, there will a table showing tidal stream information relative to each tidal diamond.

The Tidal stream information is given in 4 columns.

- The first column gives the hours before and after HW (this is HW for the relevant standard port for the chart), so the time of HW needs to be confirmed using the tide tables for the day of the dive



- The next column indicates the direction of flow of the tidal stream
- The next two columns indicate the speed of the flow. The flow rate is in knots (kn). A knot = travelling at 1 nautical mile per hour
- One indicates the rate on Spring Tides
- The other indicates the rate on Neap Tides

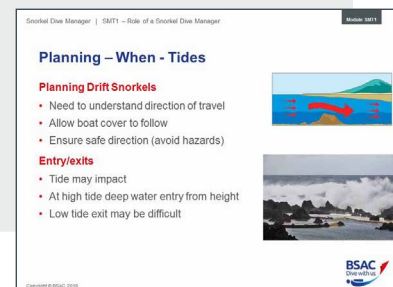
## When - Tides (2)

Diving on Spring Tides, when the greatest tidal ranges occur, the rates are faster than diving on Neap tides, when the least tidal ranges occur.

If diving on Spring tides, the least water movement is 5 hours before HW at 0.2kn, or with a bit of current, 0.5kn, 2 hours after HW. Diving the same site on Neap tides, there is a slack window 5 hours before HW but, from HW to 3 hours after, quite a large slack window

If diving between Spring and Neap tides, rates can be interpolated. If diving half way between Spring and Neap tides, take a rate halfway between the figures given. for example at HW, Spring rate is 1.3 and Neap rate is 0.6, halfway between is 0.95, say 1 knot.

- **Entries / Exits**  
Tides may impact an entry of exit. An entry point that at high tide may be a jump into deep water could be a scramble over rocks at low tide. In reverse a simple exit at low tide may become rocks buffeted by waves when the tide is higher. When planning it is important to ensure that the entry and exit points are going to be safe and accessible at the throughout the period of activity.

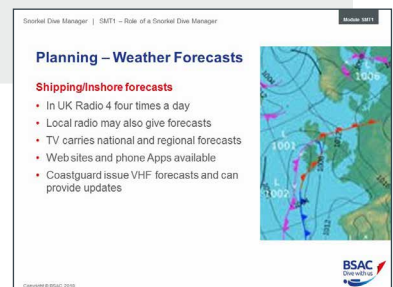


## When - Weather Forecasts

As an important part of planning, listening to weather forecasts will determine whether the dive can go ahead or not.

For known dive sites, the branch information will probably include when the wind direction and strength will prevent diving on a known site. Are there alternative known sites that could be dived?

- **Beaufort Wind Scale**  
Students may know or hear the term 'Force' when referring to wind strength,





either from other divers or listening to weather forecasts. The Beaufort Wind Scale goes from Force 1, calm conditions, up to Force 12, Hurricane winds. A wind of over Force 4 with the consequent sea state can affect snorkelling activity comfort and safety on unprotected sites

- **Shipping / Inshore forecasts**

Meteorological offices around the world issue weather forecasts for the 'next 24 hour period'. For worsening weather conditions, special warnings may be issued

- In the UK, BBC Radio 4 issue shipping and inshore forecasts for the next 24 hours. The shipping forecast covers large expanses of sea around the UK and, although mainly for offshore vessels, gives an indication of what coastal areas can expect. The inshore forecast concentrates on coastal waters - where most divers will be diving. The forecasts are given every day at the same time which are listed in radio/TV publications and nautical almanacs
- Local radio stations will also give forecasts, although they may not cover the area of the dive site
- Television stations, both national and regional, carry weather forecasts generally at the end of their main News programmes
- Web sites are also available where weather forecasts can be accessed
- The Coastguard local to the site will also give local weather information if contacted but also provide updates on conditions broadcast on VHF radio

## Quiz 1

Instructors should routinely check for transfer of knowledge to the students.

### What weather can affect diving?

- direction and time of wind
- strength of wind
- Rain/Fog

### What wind force limits diving?

- force 4 or higher

Snorkel Dive Manager | SM11 - Role of a Snorkel Dive Manager Answer 1011

**Quiz 1**


**What weather can affect diving?**

- Direction and time of wind
- Strength of the wind
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- Force 4 or higher

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## What - Other things to plan

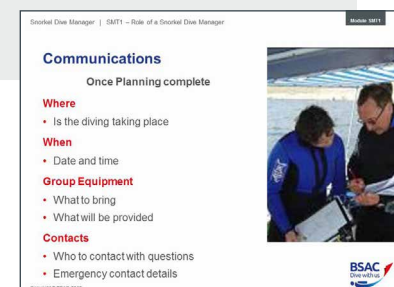
- **Costings**  
Costs need to be budgeted and shared across the group, these may include:
  - Entry fees
  - Boat costs
  - Accommodation
  - Food / drink
  - Travel costs (particularly if towing a boat)
- **Parking / access**  
Is there parking at the site or will there be a walk to access?  
Is there a charge?  
How is the site accessed via the shore or a boat?
- **Changing / toilet facilities**  
What facilities are available for use? Are there toilets and changing facilities close by? Is food and hot drinks available or will you need to be self-sufficient?
- **Safeguarding**  
If young people are involved in the trip especially overnight then their safety and well-being will need to be considered. DO parents need to attend or are other adults happy to be in charge. BSAC Safeguarding is looked at in more detail in Lecture 2.



## Communications

Once planning is done everyone involved needs to be clearly updated about what's involved

- **Where**  
Where is the snorkel diving taking place? Do they need to make their own way there or are they sharing transport?
- **When**  
What date and time?

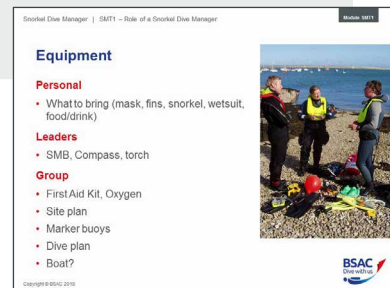




- **Group Equipment**  
What equipment do they need to bring and do they need to source any equipment for the group
- **Contacts**  
Who should they contact with any questions?

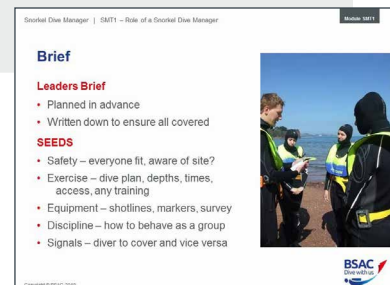
## Equipment

- **Personal**  
What do people need to bring? Mask, Fins & Snorkel, wetsuit, food, drink.
- **Leaders**  
Surface marker buoy, compass, torch?
- **Group**  
First aid kit and oxygen

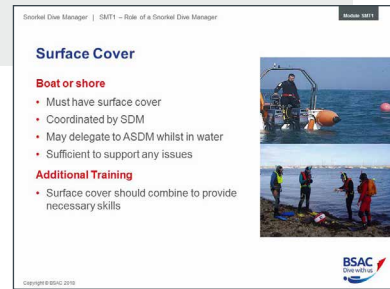


## Brief

- **Leaders brief**  
A brief should be planned in advance of the activity and written down to ensure that all important information is covered.
- **SEEDS**  
The brief should be structured around SEEDS and cover:  
**Safety** – is everyone fit to snorkel? What should they be aware of on the site?  
**Exercise** – what are we doing today? Depths, times, access. Any training taking place.  
**Equipment** – shotlines, marker buoys, survey equipment  
**Discipline** – how do you want the snorkel divers to work together as a group?  
**Signals** – Snorkel Diver to shore and back again signals.



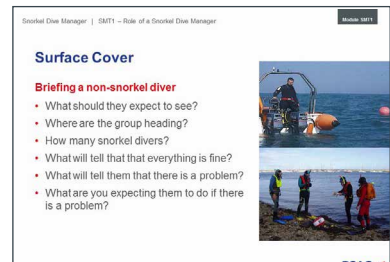
# Surface Cover



- **Boat or shore**  
Whether you are on the boat or the shore there will need to be some surface cover. This will be coordinated by the SDM while they are out of the water and they will hand responsibility over to their assistant. There should be sufficient surface cover to deal with any potential issues e.g. they should be able to assist snorkel divers from the water, help with first aid, collecting dive information.

- **Additional Training**  
The combined surface cover should be suitably trained to deal with any incidents. This may include first aid, acting as cox and picking up snorkel divers and dealing with equipment issues.

- **Briefing a non-snorkel diver**  
If you have a non-snorkel diver acting as surface cover then remember that they may not fully understand what is going on, what they need to look out for and what their responsibilities are. They should be briefed so that they can act appropriately in the event of an incident. The level of briefing may vary significantly from person to person. If there is any doubt about the non-snorkel divers ability to help in the event of an issue then they should not be left as sole shore cover.

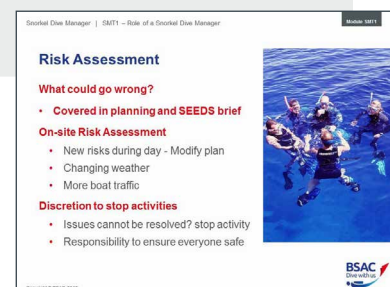


- What should they expect to see?
- Where are the group heading?
- How many snorkel divers?
- What will tell them that everything is fine?
- What will tell them that there is a problem?
- What are you expecting them to do if there is a problem?

# Risk Assessment

## What could go wrong?

As part of the planning process you should work through a review of what may cause issues during the day. This can then feed into your SEEDS brief to help manage the risks



- **On-site Risk Assessment**  
As SDM you should be aware of new risks arising throughout the day and if necessary make changes to your plans. Has the weather changed? Is there more boat traffic around? Has the first dive revealed that the site is less suitable than you expected.
- **Discretion to stop activities**  
If the issues that arise through on-site risk assessment cannot be resolved to make activities safe then you have the discretion to stop activities. It is your responsibility to make sure everyone stays safe even if it isn't the popular decisions.

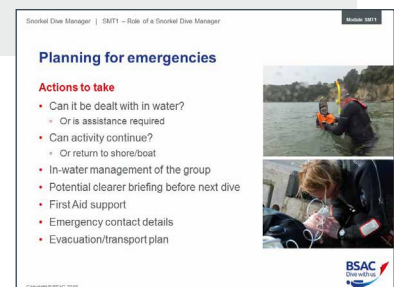
## Planning to handle emergencies

- **What Could Go Wrong?**
  - Weight belt slipping
  - Refitting mask/snorkel in water
  - Dealing with misted masks
  - Leaking masks
  - Jellyfish stings (or rather how to keep watch as avoid being stung including residual sting cells on gloves/hoods etc at end of session).
  - Group becoming spread out
  - Snorkellers colliding with each other.



## Planning to handle emergencies(2)

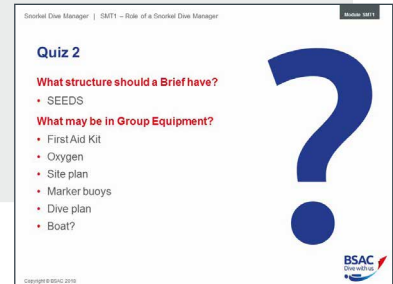
- **Actions to take**
  - Can it be dealt with in water or is assistance needed?
  - Can we continue with snorkelling activities or do we need to return to shore/boat



- In-water management of the group – and potentially clearer briefing before the next dive
- First aid support

## Quiz 2

Instructors should routinely check for transfer of knowledge to the students.



Snorkel Dive Manager | SMT1 – Role of a Snorkel Dive Manager

**Quiz 2**

**What structure should a Brief have?**

- SEEDS

**What may be in Group Equipment?**

- First Aid Kit
- Oxygen
- Site plan
- Marker buoys
- Dive plan
- Boat?

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### What structure should a Brief have?

- SEEDS

### What may be in Group Equipment?

- First Aid Kit
- Oxygen
- site plan
- Marker Buoys
- dive plan
- Boat?

## Summary

### Understand the role of the Snorkel Dive Manager

- Planning
- Communications
- Equipment Requirement
- Brief
- Surface Cover
- Risk Assessment



Snorkel Dive Manager | SMT1 – Role of a Snorkel Dive Manager

**Summary**

**Understanding the role of the Snorkel Dive Manager**

- ✓ Planning
- ✓ Communications
- ✓ Equipment Requirement
- ✓ Brief
- ✓ Surface Cover
- ✓ Risk Assessment
- ✓ Planning for emergencies

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