

## Classroom exercise part 1: Using MyMaps and starting to create a situation picture within your group:

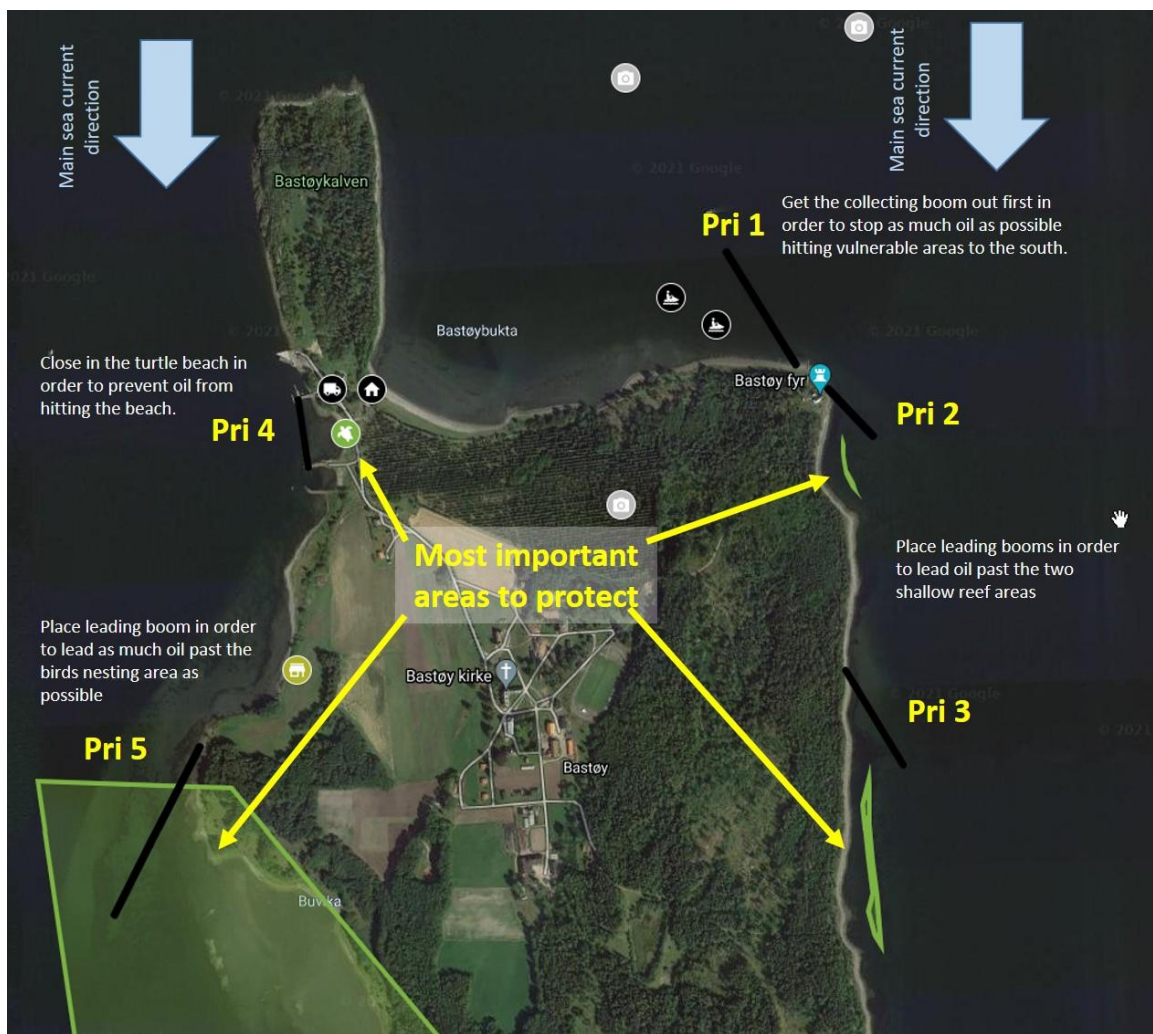
1. Designate a group leader.
2. Choose an coastal area in your own country with the following components:
  - a. Proximately 5 km
  - b. Different beach types such as marshes, mangroves, sandy beaches, shallow reefs, rocky parts and economic sensitivities (harbours, beach hotels e.g.)
  - c. Some locations which can give economic impacts if oiled
3. Group leader creates a new map in self-selected area in own country.
4. Group leader invites his/her national course colleagues to created map.
5. Establish the following map layers:
  - a. Surveillance and oiled beaches.
  - b. Observations - other than oiled beaches (e.g. oiled animals).
  - c. 2 oil slicks on water.
  - d. Photos.
  - e. Vulnerability and environmental information.
  - f. Recourses (e.g. depotes, boats, toilets, cars).
  - g. Other information.
6. Plot the following within the correct layers:
  - a. 2 oil slicks at sea which threatens the coast line.
  - b. 3 photos.
  - c. Highlight an environmental area such as a turtle beach or other vulnerable species with link to an environmental online info site (Does not have to be about turtles). If environmental information site available online, add link in the description box. (If nothing available, just put in a link to something else)
  - d. Plot 2 mangrove or marsh areas (polygons) in order to highlight this in your map.
  - e. Plot one shallow reef area (or other vulnerable underwater area).
  - f. Plot one depot with equipment.
  - g. Plot 1 oil boom, for closing in oil in a bay (think about the current in the area).
  - h. Plot 2 small work boats in the same area as the boom.
  - i. Plot in area/spot suited for vacuum cars in order to collect closed in oil (in bay, ref h).



## Classroom exercise part 2 - Acute phase (beach):

Continue in map made in group work 1. The oil is still free floating (will/can re-mobilize). You still do not know about any oiled beaches. This group work focus on areas that can be influenced and whether some of the areas must be prioritized e.g. because of environmental vulnerability or not.

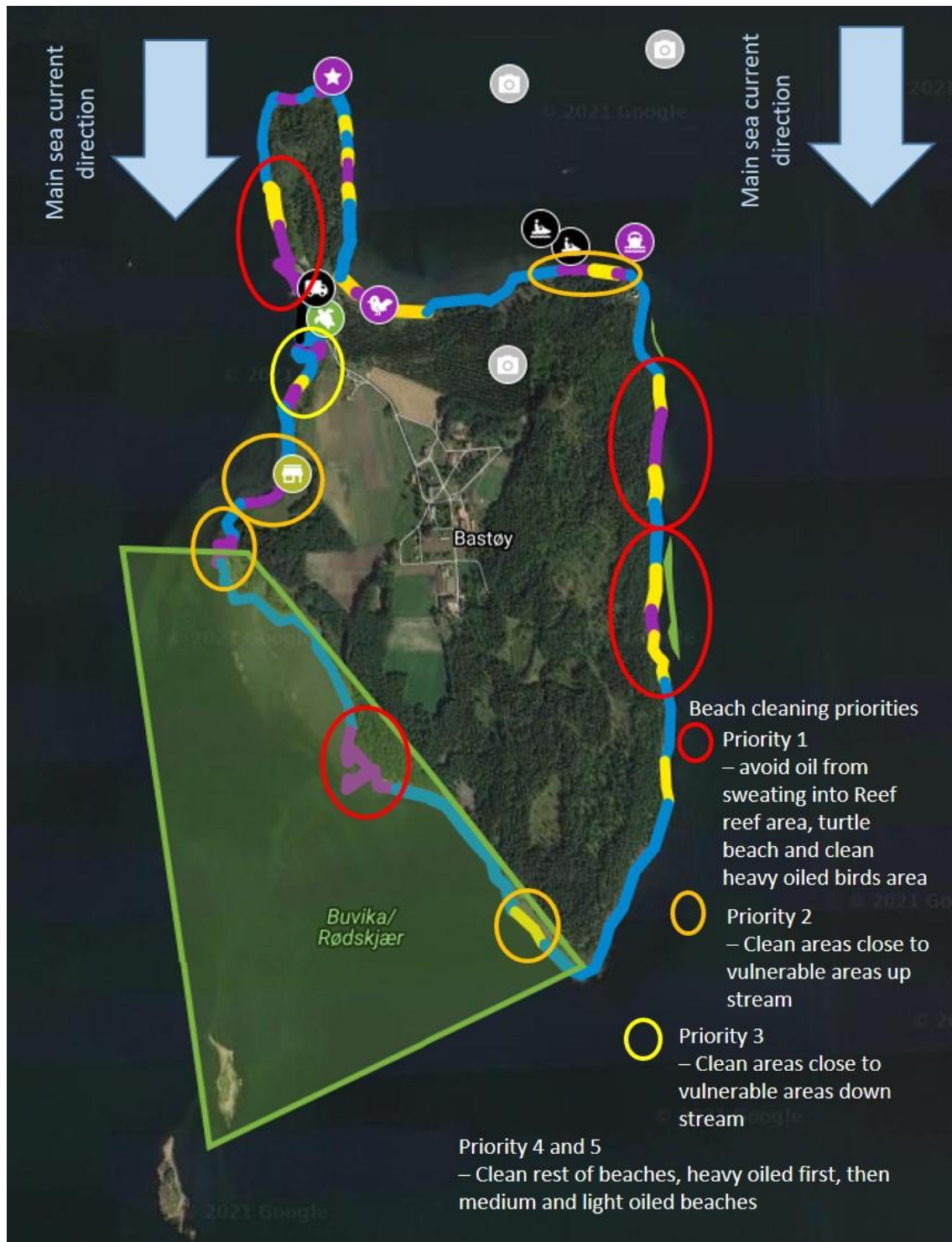
1. Find (national) vulnerability information related to the different positions in the area you have chosen. (Including what you found in group work 1)
  - a. If online information, make link to these sites available in designated positions in your map.
  - b. Prioritize the different positions/areas, based on available information on sea currents (+ weather), vulnerability information, available logistics, accessibility etc.
    - i. Which beaches/areas are most important to protect from oil?
    - ii. Is there locations in which you can sacrifice (suitable to concentrate and collect oil)?
  - c. Plot in 1 boom in 3 different locations:
    - i. One boom to concentrate oil for collection (in a natural bay)
    - ii. One boom to divert oil past a vulnerable area
    - iii. One boom to completely protect a specific area (close the area in).
2. Plot the following in correct layers:
  - a. Area/spot suited for vacuum trucks in order to collect closed in oil (in bay, ref c. i)
3. What type of equipment do you have available in which you can use in this area. (From your national oil spill contingency plan)
4. What kind of equipment would you like to have?



### Classroom exercise part 3 - Beach cleaning phase - SCAT:

Continue in map made in group work 1 and 2. The oil is now stranded and the risk of re-mobilization is smaller.

1. Plot beach surveillance etc etc (beach lines)
2. Based on the oiled beaches in your map – Prioritise the different oiled areas based on available information on vulnerability information, available logistics etc.
3. Anything else you would consider important







# Classroom exercise part 4: 5-point order

Based on your work in group work 1, 2 and 3, choose one “first priority” beach and make a work order for the personnel that shall conduct the cleaning there. Keep in mind that you should **describe information that is important for this specific group of working personnel in their specific beach**. Do not use many words e.g. describing the overall situation picture.

## 1. Briefing on the situation

Orientation is given based on the information available at any given time. Status of the situation, units in action, local situation - weather, tide etc (what, where, when..)

## 2. Mission

A brief description of the mission.

## 3. Plan and performance

A brief description in terms how the situation is to be handled based on evaluation information available (how will the mission be solved).

## 4. Administration and supply service

Brief description of logistics; personnel (accommodation, dining etc) and material (need for resources)

## 5. Communications and management

Brief description of the spill management organization with responsibility and authority. Description of the communication diagram - contact points (where is your place in the organization, which contact point are in use, radio network, any mobile number)



<b>Team leader work order nr. 1</b>	<b>Incident MV Buzzer</b>
<b>Segment: Basto E 2,3 and 4</b>	<b>Time: 27. May 2021</b>

### 1 Situation description

#### 1.1 Status segment Basto E 2, 3 and 4

The 1 May MV Buzzer grounded outside the city of Horten caused an oil spill that now have hit at several locations on the coastline of Basto island.

**Segment Basto E 2, 3 and 4**, centre position N: 59° 22.691' E: 10° 32.286.

- Segment 4 (130m) is light to medium oiled.
- Segment 3 (90m) is heavy oiled.
- Segment 2 is light oiled (160m).

The beach consists mainly of boulders and cobble in the surf wash zone and pebbles further up the beach. The heavy oiled area have several oil ponds that may re-mobilize during high tide and oil has been distributed into the upper 20cm of pebbles. In the light and medium oiled areas there is mainly patches of oil 2-20 cm in diameter on the boulders, and some oil is trapped underneath the boulders.

#### 1.2 Weather and tide

27-28 May: Weather Light breeze, 3 m/s from northeast up to moderate breeze, 6 m/s from north.  
Tide Low tide: prox 11:00 LT (+10cm)  
High tide prox 19:00 LT (+65cm)

#### 1.3 Other considerations

Vulnerable area close to the segment is the shallow reef 50 m in the sea from the beach line. Surf washing shall NOT be used in this area causing harm to the reef.

## 2 Mission

- Task nr 1. Remove bulk oil from oil ponds in segment 3.
- Task nr 2. Remove thick layers of oil down to a prominently layer of 1mm. Start with segment 3, then 4 and 2.

## 3 Plan and performance

### 3.1 Plan of execution

Arrange work area in hot, warm and cold zone for safe work in the segments. Arrange waste management in fraction for pure recovered bulk oil, oiled litter and other litter. Secure beach area with booms preventing remobilization of stranded hitting the reef.

### 3.2 Equipment

Equipment needed for this segment is big bags, plastic ladies, trowels, aluminum shovels and absorbent mats for path in and out of the area.

### 3.3 General information

- Safety and health should be focused during all parts of the operation, pointing out:
  - Personal shall use protective equipment (PPE) when recovering oil. As a minimum include skin protection (resistant clothes and gloves), and eye protection (safety glasses / face shield).
  - Use life jacket when traveling to and from the island.

- Daily reporting to OSC land:
1. Number of workers in your group
  2. Estimate volume of oil removed
  3. Estimate number of meter recovered beach
  3. Need for other supplies/equipment the further operations
  4. HSE incidents

## 4 Administration and supply service

The team will consist of 20 people every day. Work team will be transferred to the work area on the island from Horten harbor by boat every day at 0700 and back at 1700 in the afternoon. Main depot with manual equipment is set up in the main harbor area at the island. Provisions will be provided (food, water etc) in Horten harbor to entire work group before transportation to the island every morning.

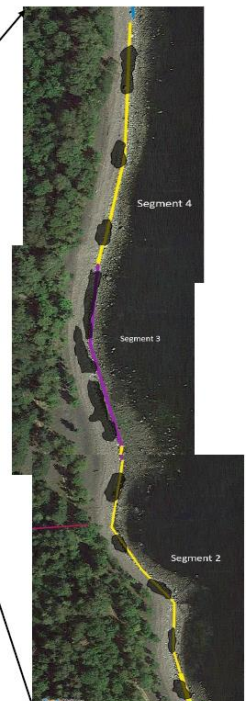
## 5 Communications and management

Team leaders contact point is OSC Shoreline. Phone number +12 345678. Call in number of personnel in your work group when at place at segment every day. Give reference to your assigned segment(s). HSE incidents is to be reported immediately to OSC land.

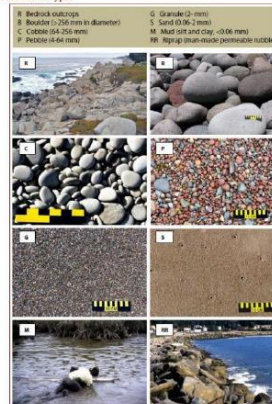


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Attachment 1. Map survey segment 2, 3 and 4.



Shoreline Sediments Types



Sediment Types (from NOAA, 2013)