

1. Some questions about you and the beach

1. How regularly do you visit the beach? (Please tick the relevant answer)

Daily ☐ Weekly ☐ Every few weeks ☐
Every few months ☐ Once or twice a year ☐ Never ☐

1.1 If you can estimate the number of days you spend at the beach each year please do so here _____ days.

2. How far on average do you travel to visit the beach? _____

3. Do any other members of your household visit the beach more often? Yes ☐ / No ☐

4. Which of these activities do you use the beach and sea for? (Please tick all that refer to you and underline the activity you most often take part in)

Surfing ☐ Windsurfing ☐ Kite Surfing ☐ Kayaking ☐
Swimming ☐ Walking ☐ Dog Walking ☐ Bird Watching ☐
With Children ☐ To Relax ☐ Fishing ☐

Other (Please state) _____

5. Please identify whether the following statements are accurate in your case:

1. The animals and plants of the coast are important to me. True ☐ / False ☐
2. I have a good knowledge of coastal bird species. True ☐ / False ☐
3. I have a good knowledge of fish species True ☐ / False ☐
4. I have a good knowledge of marine mammals. True ☐ / False ☐
5. I have a good knowledge of coastal plants. True ☐ / False ☐
6. Visiting the coast makes me feel happier. True ☐ / False ☐

6. Please rate the following beach characteristics in terms of their importance to you:

	1 Very Important	2 Quite Important	3 Neither Important or Unimportant	4 Unimportant
Amount of debris on the beach				
Amount of debris in the water				
Number of bird species present				
Number of fish species present				
Number of mammal species present				
Cleanliness of water (in terms of bacteria)				
Turbidity (how cloudy the water is)				
Distance from your house				
Surf conditions				
Distance from car park				
Number of people using the beach / water				

6.1 Are there any other beach characteristics, which are important to you in deciding which beach to visit?
If so, please list them here: _____

In 2015 European bathing water quality standards are going to be made twice as strict – we are investigating how people feel about this and how they rate it in relation to other management which could be carried out on the coastline. The questions which follow will investigate this relationship by asking you how much you would pay to travel to a beach with a given set of characteristics.

On the following pages we will ask you to complete a number of cards which offer you a choice between alternative options. Below you will find information on the choices you will face. Please read through this information as it is important that you understand the choices you are making. Aims to improve bathing water quality in line with the new EU standards will impact in a number of ways.

HEALTH OF THE SEABED (benthic health)

Firstly, improved water quality may increase the number of small animals and plants living on or in the seabed (known as benthic organisms). A healthier benthic population will increase the numbers of other species that depend on them such as birds, fish and mammals.

We ask you to consider three levels of **Benthic health**:

- **No Improvement** to the current situation which will mean no changes to the numbers or chance of seeing fish, birds and mammals.
- **Small improvement in Benthic Health** which will mean that there will be more fish, birds and mammals. This will mean that endangered species will be less likely to disappear from the seas around Northern Ireland **BUT** it is unlikely that you will see any more fish, birds or mammals on your average visit to the beach.
- **Large improvement in Benthic Health** which will mean that there will be many more fish, birds and mammals with an increased chance of you seeing them on your average visit to the beach.

HEALTH RISK

Secondly, there will be an impact of improved bathing water quality on the health risk associated with going into the sea.

Faecal coliforms and faecal streptococci are bacteria in water which come from human waste (sewage) and from birds and animals. There will always be some level of faecal bacteria in sea water from the animals and birds which live in or on the water, however, the levels tend to be more dangerous where untreated or poorly treated waste from the land enters the sea. Higher levels of these bacteria bring with them increased risk of ear infections and stomach upsets (with more dangerous complications possible for the infirm, old and the very young). The new standards which will be in place from 2015 are based upon levels of these bacteria and are much stricter than current standards.

The table overleaf gives details of the how many faecal coliforms are allowed under the current standards and the standards which will be in place in 2015. The levels public swimming pools would allow before adding more chemicals are also included as a guideline.

	Faecal Coliforms per 100ml
Swimming pools	Less than 10
Current standards	2000
2015 Good water quality	100
2015 Excellent water quality	50

We ask you to consider three levels of **Health Risk**:

- **10% Risk** - No Change to the current risk of a stomach upset or ear infection from bathing in the sea (current risk as assessed by the EU).
- **5% Risk** – Good Water Quality achieved with a somewhat reduced risk of stomach upsets and ear infections generally although still risk in particular to vulnerable groups such as children.
- **Very Little Risk** - Excellent Water Quality achieved with a larger reduction in the risk of stomach upsets and ear infections.

DEBRIS MANAGEMENT

Thirdly, the amount of debris (such as cans, bottles, cotton buds, plastic bags, sanitary products etc.) on the beach and in the water can also be a problem for users of beaches. Some of this waste can be prevented from reaching the beach, for example by cleaning filters at sewage plants and storm drains more often so that in times of high rainfall debris such as cotton buds are not washed into the sea or by better policing people dumping rubbish in or near the sea. Also what debris does make its way to the beach can be collected more regularly which should also reduce the amount in the sea which is washed back in from the shore during high tides.

Again we ask you to consider three levels of **Debris Management**:

- **No Change** – Current levels of debris will remain.
- **Prevention** – more filtration of storm water, more regular cleaning of filters and better policing of fly tipping.
- **Collection and Prevention** – debris collected from beaches more regularly in addition to filtration and policing.

PRICE

Finally in each choice there will be a **Price** which represents how much extra it would cost you personally (in terms of petrol or diesel costs, depreciation of your vehicle etc.) to reach a given beach. So if the cost per trip is £3 and you visit the beach 10 times this will relate to a cost of £30 per year.

On each card there are three choices of beach with different levels of the attributes discussed above and the additional cost of reaching that beach. This is how much extra you would have to pay to reach a beach with these characteristics compared to your current average visit. Beach C represents this current average visit and is based upon current bathing water standards in Northern Ireland – there is no additional cost associated with visiting this beach. Choosing beach C is a valid choice especially if you are happy with the current level of the characteristics considered.

The sort of choice you will face is shown below:

	Beach A	Beach B	Beach C
Benthic Health and population.	Small increase More fish, mammals and birds. Limited potential to notice the change in species numbers.	Large increase More fish, mammals and birds and an increased potential of seeing these species.	No Improvement
Health Risk (of stomach upsets and ear infections)	Very Little Risk – excellent water quality	5% Risk – good water quality	10% Risk – no improvement
Debris Management	Prevention – more filtration of storm water, more regular cleaning of filters and better policing of fly tipping.	Collection and Prevention – debris collected from beaches more regularly in addition to filtration and policing.	No Improvement
Additional cost of travelling to each beach.	£3	£9	£0
Please tick the <u>ONE</u> option you prefer.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Here the person would chose to visit beach A, the combination of attributes is the one they prefer. Some people may accept the way beaches and water quality are now or feel that the additional price to visit another beach is too high and might choose beach C. In this case others may want to see more mammals, birds and fish and prefer to visit beach B, which has a higher level of these.

There are no right or wrong answers! The results of this research aim to impact upon policy, we therefore want to understand people’s true preferences.

Block 1

Choice Card 1

	Beach A	Beach B	Beach C
Benthic Health and Population	No Improvement	Small Increase More fish, mammals and birds. Limited potential to notice the change in species numbers.	No Improvement
Health Risk (of stomach upsets and ear infections)	5% Risk – good water quality	10% Risk – no improvement	10% Risk – no improvement
Debris Management	Collection and Prevention debris collected from beaches more regularly in addition to filtration and policing.	Prevention more filtration of storm water, more regular cleaning of filters and better policing of fly tipping.	No Improvement
Additional cost of travelling to each beach.	£9.00	£6.00	£0
Please tick the one option you prefer.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Choice Card 2

	Beach A	Beach B	Beach C
Benthic Health and Population	Small Increase More fish, mammals and birds. Limited potential to notice the change in species numbers.	Small Increase More fish, mammals and birds. Limited potential to notice the change in species numbers.	No Improvement
Health Risk (of stomach upsets and ear infections)	10% Risk – no improvement	10% Risk – no improvement	10% Risk – no improvement
Debris Management	Collection and Prevention debris collected from beaches more regularly in addition to filtration and policing.	No Improvement	No Improvement
Additional cost of travelling to each beach.	£9.00	£9.00	£0
Please tick the one option you prefer.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Choice Card 3

	Beach A	Beach B	Beach C
Benthic Health and Population	No Improvement	Small Increase More fish, mammals and birds. Limited potential to notice the change in species numbers.	No Improvement
Health Risk (of stomach upsets and ear infections)	Very Little Risk – excellent water quality	5% Risk – good water quality	10% Risk – no improvement
Debris Management	Collection and Prevention debris collected from beaches more regularly in addition to filtration and policing.	Collection and Prevention debris collected from beaches more regularly in addition to filtration and policing.	No Improvement
Additional cost of travelling to each beach.	£1.60	£3.00	£0
Please tick the one option you prefer.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Choice Card 4

	Beach A	Beach B	Beach C
Benthic Health and Population	Large Increase More fish, mammals and birds and an increased potential of seeing these species.	Large Increase More fish, mammals and birds and an increased potential of seeing these species.	No Improvement
Health Risk (of stomach upsets and ear infections)	10% Risk – no improvement	Very Little Risk – excellent water quality	10% Risk – no improvement
Debris Management	Collection and Prevention debris collected from beaches more regularly in addition to filtration and policing.	Prevention more filtration of storm water, more regular cleaning of filters and better policing of fly tipping.	No Improvement
Additional cost of travelling to each beach.	£0.60	£9.00	£0
Please tick the one option you prefer.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Choice Card 5

	Beach A	Beach B	Beach C
Benthic Health and Population	Large Increase More fish, mammals and birds and an increased potential of seeing these species.	Small Increase More fish, mammals and birds. Limited potential to notice the change in species numbers.	No Improvement
Health Risk (of stomach upsets and ear infections)	10% Risk – no improvement	Very Little Risk – excellent water quality	10% Risk – no improvement
Debris Management	No Improvement	Prevention more filtration of storm water, more regular cleaning of filters and better policing of fly tipping.	No Improvement
Additional cost of travelling to each beach.	£6.00	£0.60	£0
Please tick the one option you prefer.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Choice Card 6

	Beach A	Beach B	Beach C
Benthic Health and Population	Small Increase More fish, mammals and birds. Limited potential to notice the change in species numbers.	Large Increase More fish, mammals and birds and an increased potential of seeing these species.	No Improvement
Health Risk (of stomach upsets and ear infections)	5% Risk – good water quality	10% Risk – no improvement	10% Risk – no improvement
Debris Management	No Improvement	Collection and Prevention debris collected from beaches more regularly in addition to filtration and policing.	No Improvement
Additional cost of travelling to each beach.	£0.60	£12.00	£0
Please tick the one option you prefer.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Choice Card 7

	Beach A	Beach B	Beach C
Benthic Health and Population	Small Increase More fish, mammals and birds. Limited potential to notice the change in species numbers.	No Improvement	No Improvement
Health Risk (of stomach upsets and ear infections)	Very Little Risk – excellent water quality	5% Risk – good water quality	10% Risk – no improvement
Debris Management	No Improvement	Prevention more filtration of storm water, more regular cleaning of filters and better policing of fly tipping.	No Improvement
Additional cost of travelling to each beach.	£9.00	£1.60	£0
Please tick the <u>one</u> option you prefer.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Choice Card 8

	Beach A	Beach B	Beach C
Benthic Health and Population	Small Increase More fish, mammals and birds. Limited potential to notice the change in species numbers.	No Improvement	No Improvement
Health Risk (of stomach upsets and ear infections)	5% Risk – good water quality	5% Risk – good water quality	10% Risk – no improvement
Debris Management	Prevention more filtration of storm water, more regular cleaning of filters and better policing of fly tipping.	Collection and Prevention debris collected from beaches more regularly in addition to filtration and policing.	No Improvement
Additional cost of travelling to each beach.	£12.00	£0.60	£0
Please tick the <u>one</u> option you prefer.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

In making your choices which of the attributes in the choice cards did you consider to be important or unimportant?

	Important	Unimportant
All	<input type="checkbox"/>	<input type="checkbox"/>
Benthic Health	<input type="checkbox"/>	<input type="checkbox"/>
Health Risk	<input type="checkbox"/>	<input type="checkbox"/>
Debris Management	<input type="checkbox"/>	<input type="checkbox"/>
Price	<input type="checkbox"/>	<input type="checkbox"/>

If you chose the **Beach C** option for all or most of your choices can you please explain here why you did so; for example, you are happy with the current levels of the attributes being considered here, you didn't feel the extra cost was warranted by the changes being offered, you disagree with the options being offered. Please give as much detail as you can.

Some more information about your household

Have you or anyone in your household had any illness (stomach bug, ear infection etc.) in the past which you suspect was caused by bathing in the sea? Yes ☐ / No ☐

If yes please give more details _____.

How many adults live in your household? _____

How many children live in your household? _____

Do you own a dog? Yes ☐ / No ☐

How old are you? _____

Please give as much of your postcode as you are happy to reveal? _ _ _ _ _

(We will use this data to work out how far people live away from the coast.)

Please tick the appropriate boxes

Gender: Male ☐ Female ☐

Are you a member of a conservation group (e.g. RSPB, WWF, National Trust) Yes ☐
No ☐

Which of the best describes your level of education?

School only ☐ College ☐ University ☐

What is your approximate annual household income? (*Sum of all people in the house before tax*)

Under £15,000 ☐ £15,000 to £30,000 ☐ £30,000 to £50,000 ☐
£50,000 to £75,000 ☐ Over £75,000 ☐

(We will use this data to see how representative of the general population the people who answer our survey are.)

The data collected will not be used (or accessed) by anyone other than one researcher. The data collected is relatively general and cannot identify an individual household.

Thank you for making it this far and for helping us with our research!