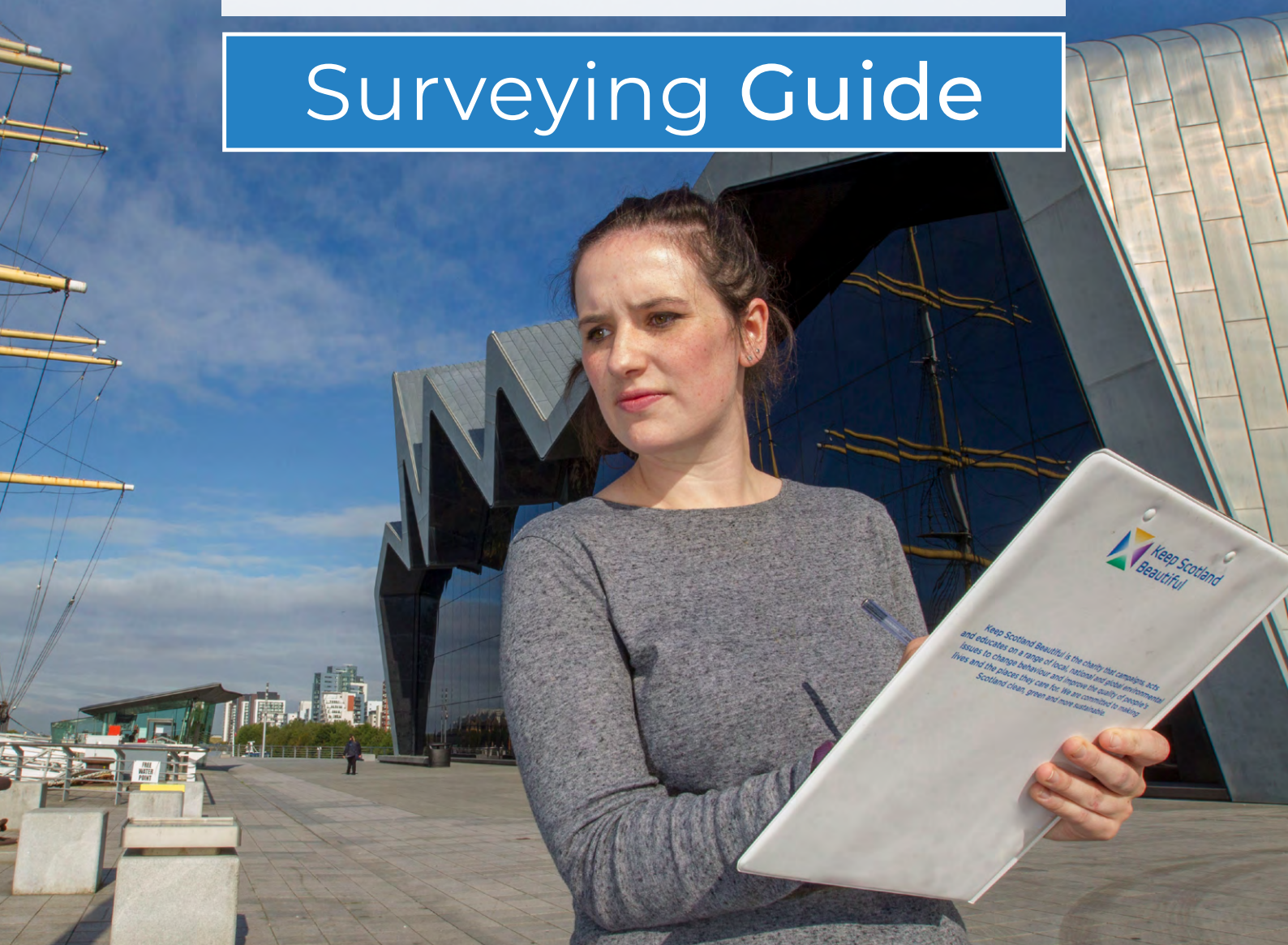


Upstream Battle

Surveying Guide



Keep Scotland
Beautiful



Crown Estate
Scotland
Oighreachd a' Chrùin Alba

Thanks for taking part in our Upstream Battle campaign



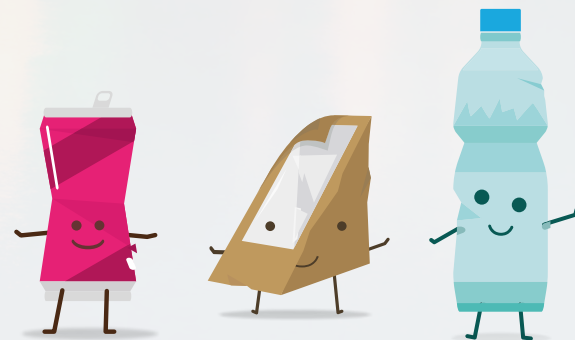
Upstream Battle is our ambitious campaign to raise awareness of and stop marine litter at source in the Clyde Valley. Whilst we know that 80% of marine litter starts life on land, we don't know in detail how much, where or what is getting into the Clyde and its tributaries.

That's where you come in!

We're asking people to carry out litter surveys along the banks of the river Clyde and its tributaries so we can get a better picture of the problem. We'll use this information to help create plans to prevent it in future.

Once you have completed your survey we ask that you undertake a Clean Up of the area to help ensure the litter you have surveyed doesn't enter the waterway.

This guide explains how to carry out a survey, including picking your site, filling in the form on the day and submitting your results.



Lets get started!

Why

We'll be using the information you collect to put together a comprehensive picture of the litter that's potentially entering the sea via the river Clyde. We'll use this information to target people to clean up their act, help create a Litter Prevention Action Plan to stop it happening again and to inform future policy.

What

We are asking groups to conduct a litter survey and a Clean Up.

The survey has three parts:

1. Counting the amount of floating litter;
2. Grading the amount of litter accumulating on the riverbank;
3. Counting and categorising the litter on the ground.

It needs to cover a 100m stretch of the river or stream bank. There is more info in the [carrying out the survey](#) section.

Where

Your survey site can be along the banks of any river, burn, canal or watercourse in the Clyde Valley*. It will be somewhere you can safely access, such as an adjacent park or path, and where you have a good view of the riverbanks. There is more information in the [picking your survey location](#) section. If you're planning on doing more than one survey, then doing the same site multiple times allows you to see any trends in litter.

When

You can carry out a survey any time you like, but ideally, we would like surveys to be repeated each season (spring, summer, autumn and winter). This will allow us to compare over the course of the year whether there are trends, or if the situation is getting better or worse.

But, if you can only do one survey that's still great! [How about linking it in with our Spring Clean](#) over April and May?

*We're focusing the campaign on the river Clyde and its' tributaries in the following local authorities: Glasgow, Inverclyde, North Lanarkshire, South Lanarkshire, East Dunbartonshire, West Dunbartonshire, Renfrewshire and East Renfrewshire.

Checklist for success



Before your event

Decide where you are going to do your survey and Clean Up. Make sure you're allowed to access the site, particularly if it's private land.

Register your event with us at www.KeepScotlandBeautiful.org/upstreambattle/citizen-science to let us know when you're planning on carrying out your survey and Clean Up.

Make sure you've got a risk assessment for the event. See the [Staying safe](#) section.



On the day

Bring along your this surveying guide and a survey sheet.

Brief any volunteers you're working with. Run through the safety guidelines and risk assessment. Make sure they understand what, where and why they're surveying – and how to do it.

Be thorough: try to get every item of litter within your transect recorded on the survey sheet.

Once your survey is complete, undertake your Clean Up of the area.



After your event

Submit your results at www.KeepScotlandBeautiful.org/upstreambattle/citizen-science

Repeat! If you enjoyed the survey and want to understand the trend of litter, then we'd recommend that you do the survey again in the same place. Once a season is ideal – but you could choose to do it as often as you like.



Picking your survey location

Focus on a local or nearby river, burn or canal that will be convenient for you to survey and conduct a Clean Up.

Find a section of water that has a path or open area such as a park next to it, that's safe to access. You can do this by simply walking around the area you've chosen, or you might want to do some prior research with a map, such as Open Street Maps www.openstreetmap.org or Google Maps www.google.com/maps.



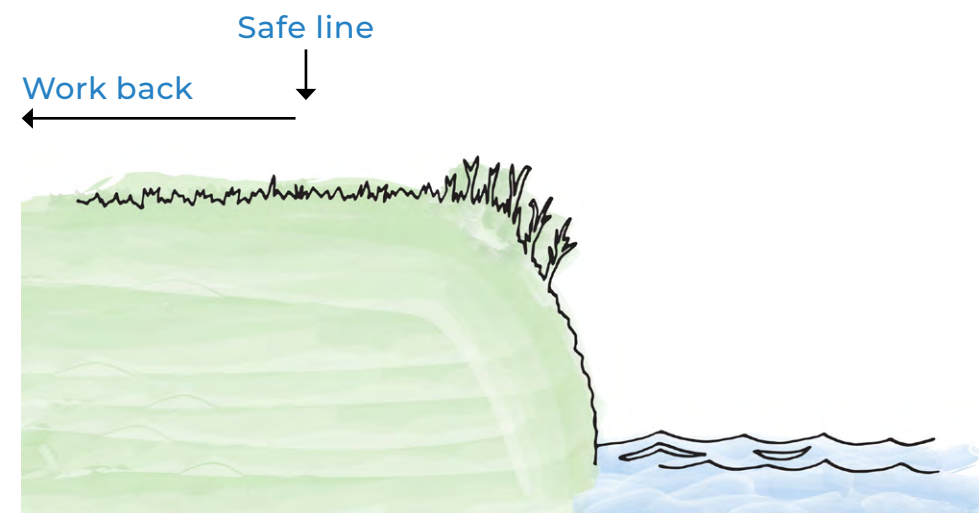
Should I focus on an area I know is particularly a problem?

You don't have to search for a real "grotspot" – all the information you collect will be included in our reporting whether it paints a good or bad picture of the local area. However, if you know of an area where litter accumulates, tackling it as part of Upstream Battle will be a satisfying challenge for your volunteers and will hopefully drive change.

Picking the transect

The section you pick for the survey is called the “transect”.

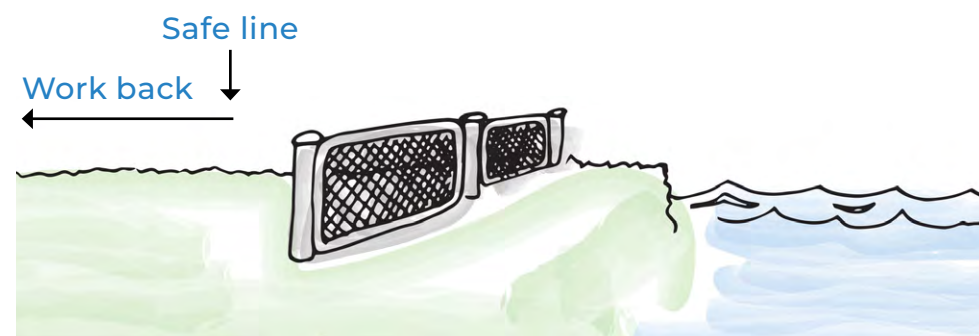
The first step is to choose a safe line to mark the closest you will get to the water at your site. In some cases, this might be the water itself, but it's more likely it will start at a fence, at the crest of steep banking or up to vegetation growing alongside the river or stream. You should also consider how fast, deep and wide the river or burn is, and choose your safe line accordingly.



Do not go near the river bank



Do not go into bushes or plants

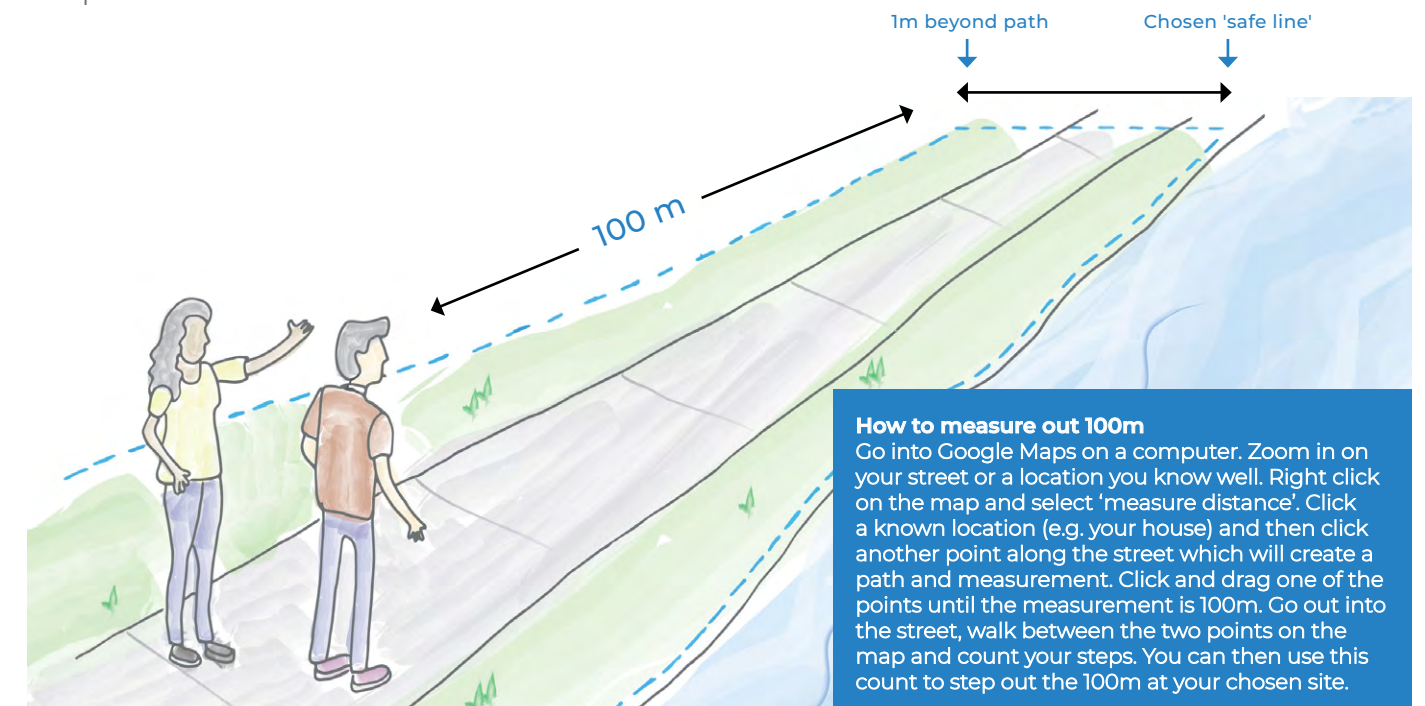


Do not cross fences / barriers

Transect dimensions

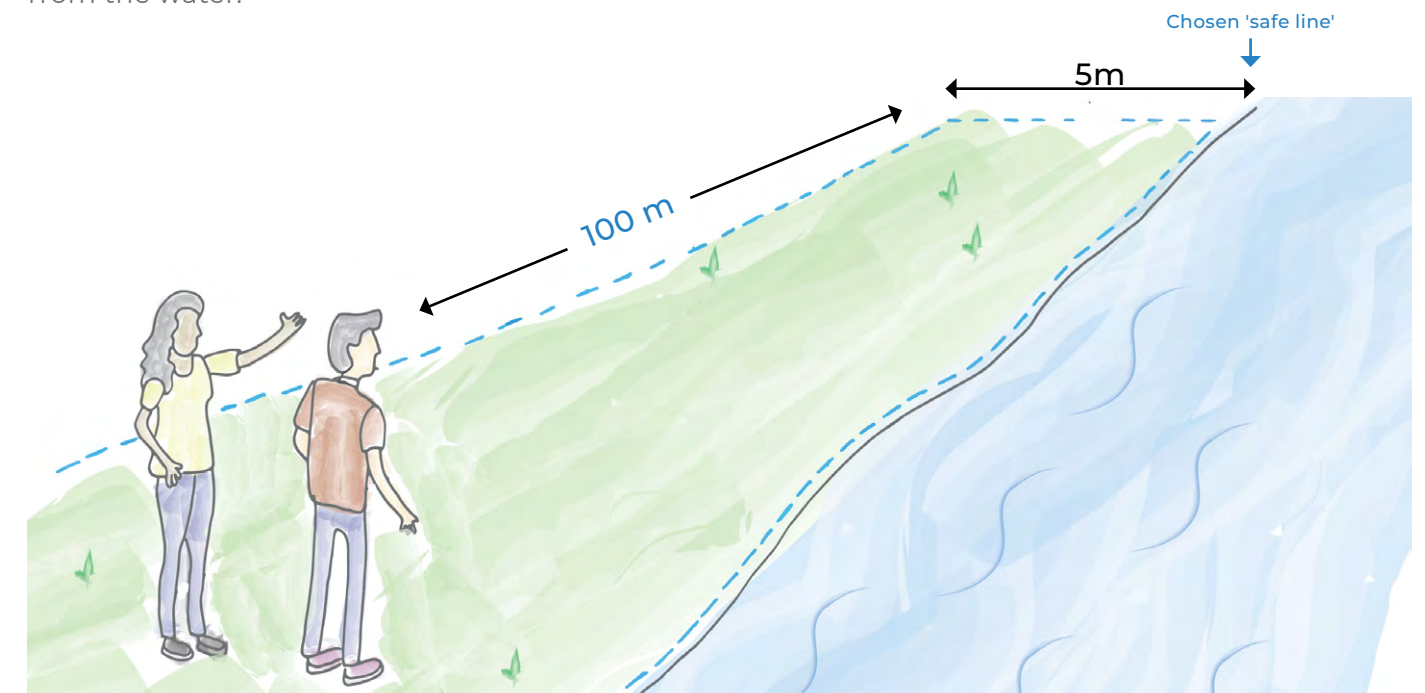
The transect needs to be 100m long and will stretch along the waters edge. The width of the transect will be different for each site.

If there is a path at your site, your transect should stretch from your chosen safe line to 1m beyond the path.



A transect at a site with a path

If there is no path at your site, your transect should be from your chosen safe line back to 5m away from the water.



A transect at a site without a path

The width of the transect should never extend further than 10m from the water. If the nature of your site and chosen safe line means that any part of your transect is more than 10m away from the water you should choose a different site.

Your safety and that of your volunteers is the most important thing when carrying out the survey, so you should never feel unsafe.

If in doubt, choose a different survey location.

Avoid	Never
✗ Boggy or uneven ground	✗ Climb over fences
✗ Steep banking, gorges and drops	✗ Lean over or towards the water when picking litter
✗ Banks with overgrown bushes, brambles and plants – particularly if these look like giant hogweed	✗ Leave people, particularly children, under your care unsupervised

Additional health and safety guidance can be found in the [Staying safe](#) section of this guide.

Once you've got your location and transect picked, register your survey and Clean Up event at www.KeepScotlandBeautiful.org/upstreambattle/citizen-science

This is where you will submit your results too.

Carrying out your survey

The survey sheet

You should complete one survey sheet for each transect. There's space at the top for you to record important information like the location, the type of watercourse, weather and information about the day. There's also space to record the information for each part of the survey.

How to find your location coordinates

It is really important for you to record the latitude and longitude of your site. This will help us to plot the data that you collect geographically to help look at distribution and movement of litter through the river system. Find out how to get your exact coordinates here:

<https://www.wikihow.com/Get-Latitude-and-Longitude-from-Google-Maps>

Please record the latitude and longitude as decimals e.g. 56.1267512, -3.9633940.

There are three parts to the survey. Together, these different measures will build a picture of the amount of litter accumulating on the ground and how much is collecting in the water.

1. Floating litter count



2. Riverbank grading



3. Litter on the ground count



Floating litter count



The first part of the survey is to count the number of litter items floating down the river.

- Find a point within your transect where you've got a good view of the river.
- Stand still and count the number of litter items that float past you in one minute. If something floats by you that looks natural, for example a branch, don't include this. Only count the items that look like litter.
- You do not need to record items by material type – just a total number is fine. Write this total on the survey sheet in the floating litter count section.
- If the water isn't flowing fast enough for you to count anything, just record as N/A.
- If you have time and want to observe your waterway for longer than one minute, simply record the duration of your period of observation in the floating litter count section of the survey sheet.

Riverbank grading



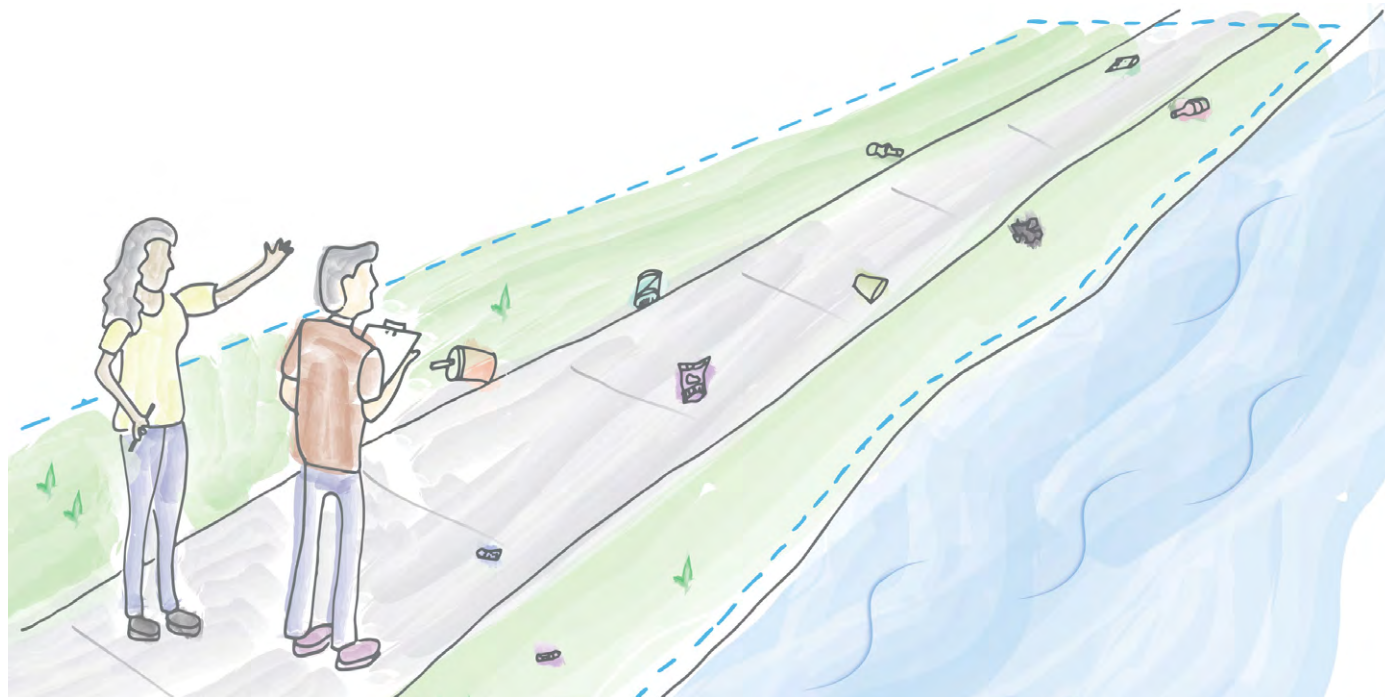
The second part of the survey is to grade the amount of litter that is accumulating on the riverbank.

Stand on the river bank at the middle point of your 100m transect. Take a good look up and down the riverbank, focusing on the water's edge, any items trapped in swirling parts of the river and on the riverbank itself. This can be either side of the river, depending on where you get the best view. If you cannot get a good view from this point, move up or down the river until you can and try again. Focusing on that area, give the area a grade using the following table as a guide:

Grade	Grade description
A	No visible litter
B	Minor accumulation (a couple of small pieces)
C	Moderate accumulation (more small pieces or a couple of large pieces)
D	Significant accumulation (lots of smaller pieces as well as larger pieces)
E	Major accumulation (large areas of the water's edge or riverbank covered with litter)

- Fill this in on the survey sheet in the riverbank grading section.
- If you conduct a repeat survey in the future, stand at the same point in your transect to conduct your riverbank grading.

Litter on ground count



The final part of the survey is to conduct a count of litter on the ground.

The second page of the survey sheet shows all of the commonly found litter types. This is split into materials, with the different items listed alphabetically, to make them easier to find.

Top tip: Read over part 3 of the survey sheet before your event, so know the different litter types and where they are on the sheet.

Walk your entire transect area, identifying each piece of litter that you find. Each individual bit of litter should be tallied and totals provided by type. It's easiest to pair up to do this – one person picking and identifying, the other marking them on the survey sheet.

You may find it easiest to litter pick your transect as you count and record items. This can help avoid double counting, particularly in sites with a large number of litter items.

If you have more than 2 people conducting the survey and wish to divide the transect into smaller sections you may wish to print additional survey sheets. Someone will need to consolidate the litter count tally at the end to capture litter within the entire transect on one sheet.

Make sure you fill in the exact number as we won't be able to use data like "lots" or "100s". There is an "other" section for each material type and a "miscellaneous" section to record items which aren't listed on the sheet. Please try to be as specific as possible.

Your survey should not take more than one hour to complete. If your chosen site is in a tidal deposition area, you may find that there are too many items to count across the entire transect. If this is the case, step out a smaller transect that captures the width of your transect and some of the length (e.g. 5m X 10m). Make sure you record the length and width of your reduced transect area on your survey sheet.

Conducting your Clean Up



Once you have completed your survey you can start your Clean Up.

Don't feel restricted to only litter picking your survey transect. If you have enough volunteers extend the Clean Up boundaries to a larger area.

Bag up the litter and dispose of it correctly (even better if you can recycle it!). Take particular care if you find sharp or dangerous items (such as needles, or sanitary items) and don't try to dispose of them yourself. The same goes for larger, flytipped items – it's better to report all of these to your local authority than risk hurting yourself.

The Clean Up Scotland [information pack](https://www.cleanupscotland.org.uk/information-pack) has further guidance on planning and conducting your Clean Up activity including how to contact and work with your local authority.

It is possible that you will see a large accumulation of litter on the riverbank. If this litter is beyond your safe line leave it where it is.

Guide to staying safe



Assessing the situation

It can be helpful to think ahead and be prepared for potential dangers or hazards before you hold your Upstream Battle event, so that you know what to do in an emergency. Hopefully you will never have to deal with a worst-case scenario, but, by being prepared you can help to reduce the odds. One way of doing this is to carry out a risk assessment.

Some of the issues to take into account when planning your survey and Clean Up are listed below, with recommendations about how to keep participants safe and well. If, however, you decide that the area you have identified carries too many risks for you and your group, it may be better to choose an alternative location for your event.

For further information about risk assessments please see the following websites:

- The Health & Safety Executive provides useful downloads targeted at employers but they could be adapted for voluntary groups: www.hse.gov.uk
- TCV runs one-day training courses in first aid and other topics relating to organising and leading environmental projects: www.tcv.org.uk

Examples of issues or hazards

Issue	Action
Use of specialist equipment	Demonstrate how to use equipment in a way that will minimise the risk of injury, e.g. taking care not to overreach with litter-pickers or not to carry sharp instruments at eye level.
Moving heavy items	Bend at the knees when moving heavy objects to avoid back injury.
Removing drug-related litter: needles and syringes etc.	Many councils have a rapid response team that will remove hypodermic needles or drugs-related litter for you. You should not risk your own safety by attempting to touch or remove it yourselves. If you have identified this as an imminent risk, please contact your council for advice.
Finding flytipped or toxic waste: unidentified cans or canisters, oil drums, poisons, insecticides, clinical waste, and other hazardous substances	If you see someone flytipping or if you discover dumped waste, please report it to the Dumb Dumpers 24 hour stopline on 08452 30 40 90 for further investigation by the relevant authorities.
Removing sharps items: broken glass, sharp or rusted metal	Use safe containers, e.g. sharps boxes (or a sealed biscuit tin), for collection as items can protrude from refuse sacks and cause injury.
Negotiating roadsides/traffic: busy roads	Wear fluorescent arm bands, hi-visibility vests or tabards if working anywhere near traffic. Make sure you can get off the road easily to make room for traffic. Chose sections of road where you can be seen clearly by approaching drivers.
Dealing with natural hazards: fast flowing water, currents or tides, steep / slippery / unstable banks, sharp rocks, mud, holes, low lying branches	Take extra care near hazards and make sure participants are fit enough to cope with these obstacles. If working near water, make sure non-swimmers and children keep away from the edge, provide a supply of lifebelts or jackets, use a safety line and have a trained lifesaver present. Check tide times as appropriate.
Working near inland water, e.g. rivers and canals	Provide rescue equipment and advise against litter collection involving leaning over the water. Contact with water and the water edge has the risk of Leptospirosis. Hand-washing facilities are advised, and in the case of accidental immersion call 999 as the water will be extremely cold.
Finding giant hogweed	Avoid the area and seek immediate medical attention if skin comes into contact with this injurious weed as blistering, irritation or rashes occur.
Dealing with other hazards: derelict buildings, electric fences (identified by yellow warning signs), abandoned vehicles	Do not be tempted to approach these hazards. If you are concerned about anything along these lines, contact your local council for advice.
Working with children and vulnerable adults	Follow school's own risk assessment procedures. Take particular care over the supervision of participants. Consider the ages and capabilities of those involved and make sure there are sufficient able-bodied adults to assist, e.g. in the case of young children there should be at least one adult to every four children. Do not be over ambitious and be prepared to adapt your event to suit circumstances.
Keeping in touch	Use walkie-talkies or mobile phones to keep in touch with participants if the group is split up, and locate the nearest public phone for use in an emergency.



Health and safety

For any event, it is wise to take a first aid kit and anti-bacterial wipes / gel with you. At the event you should notify your volunteers of who the first aider is and what to do in case of illness or injury. Anyone who has been picking up litter should clean their hands, arms and fingernails thoroughly afterwards.

You should ensure that volunteers are dressed appropriately for the weather and terrain, e.g. in warm waterproof clothing if it's wet and windy, or wearing sunscreen and a hat if you are lucky enough to have good weather; and strong, comfortable boots or shoes. Protective gloves are also advisable.

Before setting out, volunteers should be warned to look out for potential hazards (as identified in your risk assessment) and take precautions to avoid and protect against them. See the table on previous page for examples of issues or hazards to be addressed and recommended action to take.

Insurance

Obtaining Public Liability Insurance is advisable if you are planning an Upstream Battle event. It will provide cover for your legal liability arising from accidental damage or injury (to a member of the public or their property) that may occur during the event. Many groups already have relevant cover e.g. educational institutions or groups that are part of a larger or national body but if not, you should contact your local council whose insurance may cover this type of event. Otherwise, staff should be able to give advice about how other groups in your area tackle this issue, e.g. through TCV's Community Network membership scheme <https://www.tcv.org.uk/community/join-community-network>.



Thank you!

Thanks again for taking part in Upstream Battle. You have contributed to a better understanding of litter in the Clyde valley and its pathway to the ocean. We will use the information you have collected to develop plans to help prevent it in the future.

Don't forget to submit your survey results online at www.KeepScotlandBeautiful.org/upstreambattle/citizen-science

Remember, if you enjoyed taking part in this survey. Do it again! The more times you survey a site or survey additional sites the better.

Spread the word about your activities. When posting about Upstream Battle, make sure you tag us on social media with your before and after photos @KSBScotland, @CleanUpScotland and use the hashtags #UpstreamBattle #Source2Sea



We support the ambitions of the United Nations Sustainable Development Goals.

Keep Scotland Beautiful is your charity for Scotland's environment. We work with you to help combat climate change, reduce litter and waste, and protect and enhance the places we care for.



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