



Land Incentive Scheme Handbook (STT1)



The 'Source to Tap' project is supported by the European Union's INTERREG VA Programme, managed by the Special EU Programmes Body (SEUPB).

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The Source to Tap Project

Source to Tap is an innovative and exciting, cross-border partnership project. It focuses on the River Erne and the River Derg catchments which cross the border between Ireland and Northern Ireland.

It aims to develop sustainable, catchment-scale solutions for the protection of rivers and lakes, which are the main sources of our shared drinking water.

The project focuses on reducing the amount of soil and the herbicide MCPA in our rivers and lakes, from which drinking water is abstracted.

The project runs from 2017 to 2021. It is funded by the European Union's INTERREG VA Programme managed by the Special EU Programmes Body, the Department for Agriculture, Environment and Rural Affairs (DAERA) in Northern Ireland, and the Department for Housing, Planning and Local Government (DHPLG) in Ireland.

The Source to Tap project consortium is formed of a group of partners including Northern Ireland Water, Irish Water, Agri-Food and Biosciences Institute (AFBI), Ulster University, East Border Region and The Rivers Trust.

Did you know...

A single drop of MCPA can breach the drinking water limits for herbicide in a 1 metre wide stream for 30 kilometres.

On average, 1 tonne of soil per hectare, per year, is lost from agricultural grassland which significantly affects the productivity of land as well as impacting on water quality and aquatic ecosystems through silting up of watercourses.

The Source to Tap Pilot Land Incentive Scheme Handbook

The Source to Tap Land Incentive Scheme (the Scheme) aims to give farmers in the River Derg catchment grants of up to £20,000/€23,000¹ (depending on whether your farm is in Northern Ireland or Ireland) to modify some of their farming practices to protect our precious freshwater environment, whilst making their farming business more sustainable. Clean waters provide healthy ecosystems for wildlife, plants and people. The overall aim of the Scheme is to improve the quality of water in our rivers

¹ This exchange rate was set in line with the SEUBP project exchange rate at the start of the project and is not variable.

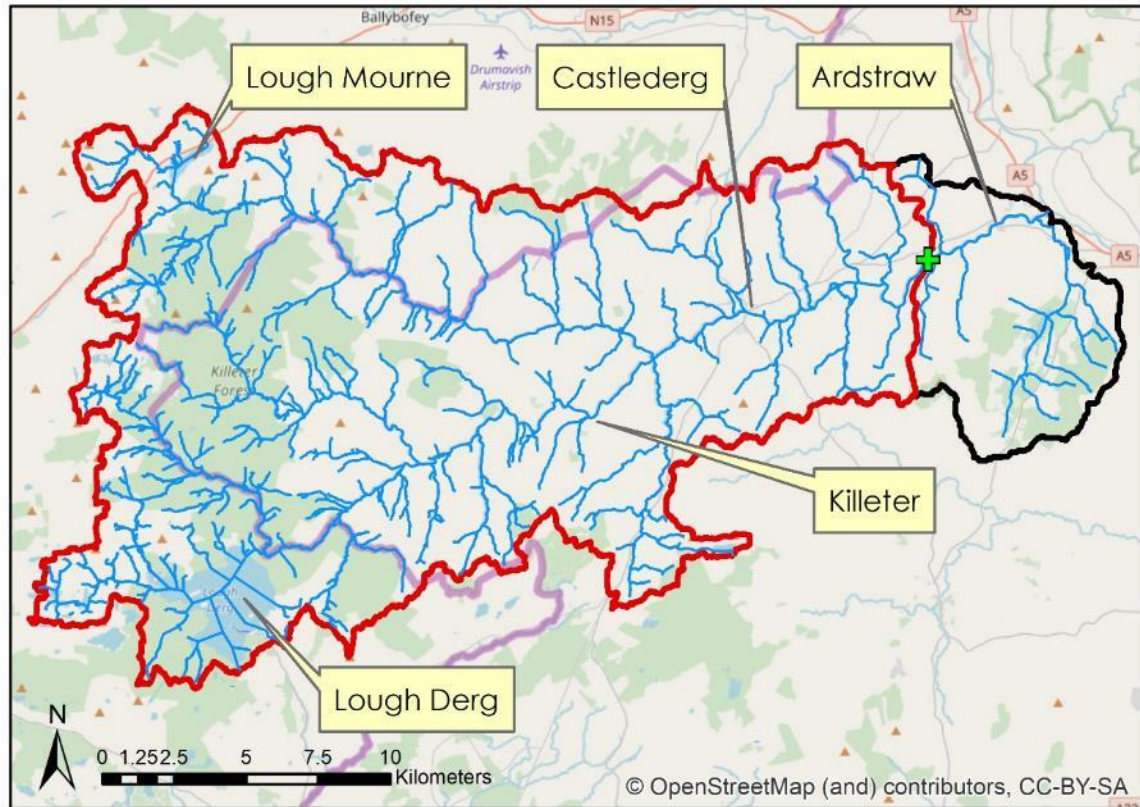
and lakes which we depend on as a supply of drinking water. Within Source to Tap we are focussing on reducing the herbicide called MCPA and sediment in our rivers and lakes.

To provide a continuous supply of good quality drinking water to the local region, water taken from our rivers and lakes must be treated to remove pollutants such as sediments and MCPA; this can be costly. Through this unique Scheme, we want to find out if it is cheaper to reduce the amounts of sediments and MCPA getting into the water in the first place.

Can I apply?

To apply for the scheme:

- You must be the landowner (tenants should get their landowner to apply)
- Your farm must be located entirely or partly within the catchment area of the River Derg that is upstream of the Derg Water Treatment Works (see map and check if your farmland is in the eligible area by looking on our web mapping portal at www.sourcetotap.eu/explore).



How long will the Scheme run for?

The scheme is open for 24 months from 25th July 2018 to 31st July 2020.

However, the scheme is first come first served, and will close when the budget has been used.

All work must be approved by a Source to Tap Project Officer by the 31st July 2020 to be reimbursed.

What is included within the scheme?

There are several actions that can be done to improve the water quality in your area. There is also scope for you to suggest alternative measures under the farmer innovation item 6.1 if it is expected to improve water quality.

Item	Description
Advice and Support	
1.1	REQUIRED: Water Environment Management Plan Development and Delivery
1.2	Rush and/or Peatland Management Plan (where applicable)
Herbicide/Pesticide Control and Rush Management	
2.1	Installation of a pesticide sprayer loading area and wash down area
2.2	Installation of biobed
2.3	Installation of biofilter
2.4	Provision of pesticide storage unit
2.5	Contractor for weed wiping to replace MCPA use
Protection of watercourses from stock & alternative drinking points	
3.1	Stock fencing on watercourses
3.2	Tree Planting next to Watercourses
3.3	Alternative Stock Drinking Points - Water Trough (Including base)
3.4	Alternative Stock Drinking Points – Cattle Operated Pasture Pump (Including base)
Reduction in surface flow across farm	
4.1	Gateway relocation
4.2	Improvement of farm tracks and access routes
4.3	Clean and dirty water separation
4.4	Sedimentation traps and Interception ponds
Peatland Management	
5.1	Drain blocking
5.2	Restoration of peat without plant cover - nurse crop
5.3	Restoration of peat without plant cover - brash spreading
Other	
6.1	Farmer Innovation

Table 1 Items available

How do I apply?

In this booklet you will find a description of the items you could apply for. If you think these might work on your farm, please get in contact with one of the Source to Tap Project Officers.

The Source to Tap Project Officer will visit your farm for a farm walk and together you will produce a Water Environment Management Plan (WEMP) with recommendations of what could be included in your Scheme application.



The WEMP is designed to allow you to see all the opportunities there are on your farm to help protect the water environment as part of an efficient farm business.

Once you have received your personalised WEMP, your Project Officer will talk you through the application form and leave it with you to fill it in. When complete, the application should be sent back to the Project Officer who visited you.

Once your Application has been approved, it will be your duty to instruct a contractor to complete the work to the appropriate standard as stated in this handbook and in your Water Environment Management Plan (item 1.1). Your Source to Tap Project Officer can help you find contractors to complete these works and you will then be required to pay the contractor directly, before any grant is reimbursed to you.

How will the items be paid for?

All costs are paid for by the Source to Tap Project.

Once you and your Project Officer have identified what items will work on your farm, up to a total value of £20,000 in Northern Ireland and €23,000² in Ireland, you will have responsibility for getting price checks or quotes (depending on the cost of the item,

² This exchange rate was set in line with the SEUPB project exchange rate at the start of the project and is not variable.

Error! Reference source not found. 2) from contractors and suppliers. But don't worry, your Source to Tap Project Officer will be on hand to help you.

The quote demonstrating best value for money for each item is the one that will be grant aided through the Scheme. The limits for quotes are stated in £GBP and €Euros and the limit which will be applied is that which related to the local currency of the country in which the farm is registered.

Table 2 Price comparisons necessary for work to be carried out

Estimated value of order (excluding vat)	Quotes and evidence needed.
Up to €5,000.00 (up to £5,000.00)	<p>A minimum of 2 price checks from competent suppliers prior to consenting works. Evidence could be a written quote, oral quote, leaflet, internet page. A written record of an oral quote should be retained for audit.</p> <p>All price check details must be kept on file</p> <p>Order will be checked to confirm that these are standalone items and not part of a larger item</p>
€5,000.01 to €20,000.00 (£5,000.01 to £20,000.00)	<p>Evidence that a minimum of 3 written quotes were sought from competent suppliers who ordinarily supply the relevant goods/services.</p> <p>Evidence of invitation to tender sent to all potential suppliers which should include 'subject to funding'. Date stamped evidence of tenders sent, and quotations received.</p> <p>Evidence of approval process for selected contractor signed by farmer.</p> <p>Correspondence with the successful and unsuccessful bidders/suppliers.</p> <p>Contract or equivalent awarded to winning supplier.</p> <p>Documented changes or addendums to contract. (Prior approval must be granted by funder).</p>

If you are VAT registered, the Scheme will not provide grant for the VAT as you will be able to reclaim this from your local tax office. If you are not VAT registered the total eligible cost of each item, including the associated VAT, may be reclaimed from the project.

Once you have obtained your quotes you will be required to complete a simple Application Form, which your Source to Tap Project Officer can help you with. If your application is approved, it will be your duty to instruct a contractor to complete the work to the appropriate standard as stated in the Water Environment Management Plan (see "Description of Eligible Items" item 1.1 below), this handbook and other relevant Scheme documents.

After the work is complete you should contact your Project Officer. Once your works are approved by your Project officer you will be given a Claim Form which, with help from your Project Officer, you will be required to complete. Payment will be made to you after the Project Officer has captured relevant evidence and has signed off the items.

It will be important to keep all the original quotes, receipts and relevant bank statements for the work undertaken to get the money back from the scheme. Without them you will not be able to reclaim the cost of items.

Once items are installed it will be your responsibility to maintain them for a minimum period of 7 years (except in the case of Force Majeure, see page 35).

Key Points to Note

- It is your responsibility to ensure that the person applying pesticides is correctly trained and holds the appropriate specified certificate of competence or is working under the direct supervision of a person who holds the specified certificate of competence.
- Your farm must be located entirely or partly within the River Derg catchment upstream of the Derg Water Treatment Works.

- Actions that are associated with compliance with regulations and legal minimum standards are not eligible for funding as part of this Scheme.
- The Scheme will not pay for works that have already been started.
- It is your responsibility to ensure that the work does not impact on cross compliance responsibilities or other schemes that you may be involved in.
- If herbicides/pesticides are being applied, it is your responsibility to keep livestock away from the sprayed pasture.
- Checks may be carried out at farm level to ensure you have followed the requirements of the Scheme.

The application process



Description of Eligible Items

1 Land Management

1.1	ESSENTIAL REQUIREMENT: Water Environment Management Plan (WEMP) Development and Delivery
Aim	The support of the Source to Tap Project Officer will help you decide on the best actions to fit your farm. They will also help you meet the requirements of the scheme.
Action	<p>A Source to Tap Project Officer will produce a WEMP with you on your farm. This will involve a farm walk to find which items would best suit your farm business and improve water quality.</p> <p>The WEMP will include an assessment of farm buildings, tracks and all fields on the farm. It will then highlight what could be put in place to protect nearby rivers and lakes with a focus on reducing MCPA and soil in water.</p> <p>The Source to Tap Project Officer can also provide technical support to help you with filling in the application and delivery of the chosen items.</p>
Additional notes	<div data-bbox="472 1294 1442 1451" style="background-color: #92d050; padding: 10px; text-align: center;"> <p>Only items that are in the WEMP and eligible under the Scheme will be paid for by the Source to Tap pilot Land Incentive Scheme.</p> </div> <p>The Source to Tap Project Officer can also provide support for actions not covered by the WEMP which could lead to improvements in drinking water quality, by indicating other possible sources of funding or low-cost solutions to implementation.</p>

1.2	Rush and/or Peatland management plan
Aim	The Rush and/or Peatland Management Plan will provide information on how different actions can work together to fit your farm and farming activities, whilst protecting watercourses.
Action	<p>A Source to Tap Project Officer will produce a WEMP with you on your farm. This will involve a farm walk to find which items would best suit your farm business and improve water quality. If appropriate the Project Officer will produce a Rush and/or Peatland Management Plan. These plans will be concise 1-2 page documents.</p> <p>The Peatland Management Plan will consider the current state of the peatland and suggest where the peatland could be restored. This could include where the peatland is dry, or plant cover is low.</p> <p>The plan will consider how the peatland items 5.1-5.3 can be put together and suggest a timeline for when the items should be put in place. It will also suggest more technical details for example which plants (e.g. Common heather or Cotton grass) can be used as the nurse crop. The plan may also include some recommendations to limit damaging actions such as peat cutting and driving machinery over your peatland.</p> <p>The Rush Management Plan will measure the extent of the rush issue on farm (percentage cover) and highlight fields where items will be most suited. The plan will consider how the rush management items 2.1-2.5 can be put together and suggest a timeline for when the items should be put in place and suggest other details on the management of rushes (e.g. When to cut the rushes back before weed wiping).</p>
Additional notes	None

2 Pesticide Control and Rush Management

2.1	Installation of a pesticide sprayer loading area and wash down area
Aim	<p>Very high concentrations of pesticides are commonly stored and handled on a farm and even the smallest spillage can cause a large amount of damage to land and/or pollution of water. Pesticide loading and wash down areas decrease the risk of pollution by providing a dedicated space which can collect washings from sprayers and/or applicators. Decreasing pesticides entering watercourses is important for the health of fish, vegetation and birdlife. It also means lower treatment costs for drinking water.</p>
Action	<p>Construction of a concrete pesticide loading, and/or washing area. This item could include; a new bunded concrete loading area, holding tanks, fixed pumps and pipework for removing washings from the holding tank. Site preparation and excavation is included.</p> <p>The WEMP will be used to identify a suitable site for the pesticide sprayer loading/ wash down area. This will not be within 10 metres of any field drain, water course, pond, or within 50 metres of a borehole or a spring or 250 meters from a borehole or spring used for a public water supply. The site will not be an area that often floods. The size of the area should be discussed with your Project Officer.</p> <p>The wash down area, including joints, will be waterproof and have a concrete bund around the outside. The washings will move from the bunded area and will connect to a tank or chamber via a drain (with a silt trap attached). Your Project Officer will discuss the size of tank necessary. This will depend on if the area is covered or not.</p>



Figure 1 Concrete pesticide handling area. Courtesy of the Environment Agency.

Additional notes

The item must be :

- Must be designed, constructed and maintained in line with the Pesticide Handling Area and Biobed Manual (The Voluntary Initiative, February 2015).
- Dilute pesticide washings must be disposed of by applying the water to the treated or untreated crop, to biobeds or biofilters, or collected by a licensed-disposal collector.
- You will need to consult with your local authority to understand if planning permission is needed.
- You will need to consult with the Environment Protection Agency on Tel: 01 6157552 or email pcs@agriculture.gov.ie or Northern Ireland Environment Agency on Tel: 02894426601 or email: enquiries@cafre.ac.uk regarding your plan. Your Project Officer can help with this.

2.2	Installation of biobed (direct or indirect)
Aim	Biobeds are designed to collect and break down pesticide residues in washing areas from pesticide handling activities and have the potential to reduce pollution going into watercourses. Decreasing pesticides entering watercourses is important for the health of fish, vegetation and birdlife. It also means lower treatment costs for drinking water.
Action	<p>A biobed is a lined pit in the ground, filled with a mixture of peat free compost, straw and soil turfed over.</p> <p>This item could include:</p> <ol style="list-style-type: none"> 1. Indirect biobed - where pesticide mixing and handling takes place on an impermeable surface and where a sealed drainage system directs run off on to the biobed (Figure 2a). 2. Direct biobed - where pesticides are mixed and handled on a reinforced steel mesh grid above the biobed (Figure 2b). <p>The WEMP will be used to find a suitable site for the biobed. This will not be within 10 metres of any field drain, water course, pond, or within 50 metres of a borehole or a spring or 250 meters from a borehole or spring used for a public water supply. The site will not be an area that often floods. The size of the area should be discussed with your Project Officer.</p> <p>The biobed can be used for a maximum of 15,000 litres in any period of 12 months. The biobed must be at least 1 meter in depth and must have at least 1 cubic meter biobed material for each 1,000 litres of liquid. Biobed material should be replaced after 5 years, stored for one year before spreading to land.</p> <p>The Source to Tap Project Officer can provide guidance on the best system for your farm.</p>



Figure 2a and 2b: Biobed. Courtesy of Environment Agency

**Addition
al notes**

Must be designed, constructed and maintained in line with the Pesticide Handling Area and Biobed Manual (The Voluntary Initiative, February 2015).

Farmers in Northern Ireland will need to discuss with the Northern Ireland Environment Agency on the location of the biobed and if a waste management licence is needed. They can be contacted at Tel:0845 3020008 or Email: nieainfo@daera-ni.gov.uk

Please note a paragraph 47c waste exemption needs to be in place for the biobed. If this was previously notified to NIEA using the Single Farm Payment form, or other means, the authorisation remains in place. If a farmer wishes to register this authorisation, the guidance can be accessed at the following link: <https://www.daera-ni.gov.uk/sites/default/files/publications/doe/Agricultural%20Waste%20Guidance-august2016.pdf>

The link to the form is under item 2.3.

Farmers in Ireland should consult with the Environment Protection Agency. They can be contacted at Tel: 053 91 60600 or email: licensing@epa.ie

Biobeds can only be installed alongside an appropriate washing and handling store.

2.3	Installation of biofilter
Aim	<p>Biofilters are designed to break down pesticide residues and have the potential to reduce pollution. Biofilters work best on farms with low pesticide waste. Decreasing pesticides entering watercourses is important for the health of fish, vegetation and birdlife. It also means lower treatment costs for drinking water.</p>
Action	<p>The biofilter system will need 4 new Intermediate Bulk Containers (IBCs), 3 of them will be stacked vertically to act as the biofilter and one will be used as tank to collect sprayer washings. The containers used for filtration will be filled with a wire mesh lining, pea gravel and biomix (one-part peat-free compost, 1 part topsoil and 2 parts straw). Washings from the pesticide sprayer loading area are pumped into the uppermost tank and filtered through the biomix as it moves through the tanks. Your Project Officer can help with other details on how the biofilter is built.</p> <p>The WEMP will be used to find a suitable site for the biofilter. This will not be within 10 metres of any field drain, water course, pond, or within 50 metres of a borehole or a spring or 250 meters from a borehole or spring used for a public water supply. The site will not be an area that often floods and the biofilters must be placed on a flat concreted surface. The size of the area should be discussed with your Project Officer. The biofilters should be used to treat a maximum of 15,000 litres in any period of 12 months. Biofilter material should be replaced after 5 years, stored for one year before spreading to land.</p>



Figure 3: Biofilter system. Courtesy of the Voluntary Initiative (2013)

**Addition
al notes**

Must be designed, constructed and maintained in line with the Pesticide Handling Area and Biobed Manual (The Voluntary Initiative, February 2015).


Farmers in Northern Ireland will need to discuss with the Northern Ireland Environment Agency on the location of the biofilter and if a waste management licence is needed. They can be contacted at Tel:0845 3020008 or Email: nieainfo@daera-ni.gov.uk


Please note a paragraph 47c waste exemption needs to be in place for the biobed. If this was previously notified to NIEA using the Single Farm Payment form, or other means, the authorisation remains in place. If a farmer wishes to register this authorisation, the form can be accessed at the following link: <https://www.daera-ni.gov.uk/sites/default/files/publications/daera/Agricultural%20Waste%20Exemption-august2016.pdf>

The link to the guidance is under item 2.2.

Farmers in Ireland should consult with the Environment Protection Agency. They can be contacted at Tel: 053 91 60600 or email: licensing@epa.ie

Biofilters can only be installed alongside an appropriate washing and handling store.


2.4	Provision of pesticide storage unit
Aim	Industry standard Pesticide Storage Cabinets provide safe, secure storage of pesticides, herbicides, fertilisers and other turf chemicals. Having the correct pesticide storage can help keep pesticides safe and out of watercourses. Decreasing pesticides entering watercourses is important for the health of fish, vegetation and birdlife. It also means lower treatment costs for drinking water.
Action	<p>The Industry standard Pesticide Storage Cabinet will be resistant to fire, capable of retaining leakages/spillage, dry, frost-free, adequately ventilated and secure against unauthorised access.</p>  <p><i>Figure 4: Pesticide storage unit. Courtesy of Bangor University.</i></p>
Additional notes	<p>Pesticide storage should be installed in accordance to The Voluntary Initiative, February 2015.</p> <p>Guidance on record keeping with respect to plant protection products can be found here:</p> <p>Northern Ireland https://www.daera-ni.gov.uk/articles/code-practice-using-plant-protection-products</p> <p>Ireland http://www.pcs.agriculture.gov.ie/plantprotectionproducts/useofplantprotectionproducts/</p>

2.5	Contractor for weed wiping to replace MCPA Use
Aim	<p>Weed-wipers can manage rushes more efficiently than conventional boom sprayers using less chemical with a dramatic reduction in spray drift. Weed-wipers are only licensed for use with glyphosate, a chemical that has potentially less impact on water quality as it can break down quicker in around 3-7 days compared with MCPA, which breaks down in 3-4 weeks.</p> <p>Decreasing pesticides entering watercourses is important for the health of fish, vegetation and birdlife. It also means lower treatment costs for drinking water.</p>
Action	<p>If required, a Rush Management Plan will be developed in addition to the WEMP by the Project Officer with your input.</p> <p>This item will allow the hiring of a specialist trained weed wiping contractor to control the rushes on the farm.</p>  <p><i>Figure 5: Quad towable weed wiper</i></p>
Additional notes	<p>Not available to farms under Environmental Farming Scheme (EFS) agreements in Northern Ireland due to restrictions on pesticide usage.</p> <p>Restricted availability to farms under GLAS agreements in Ireland, dependant on conditions of options under GLAS rules.</p> <p>Guidance on record keeping with respect to plant protection products can be found here:</p>

<p>Northern Ireland</p> <p>https://www.daera-ni.gov.uk/articles/code-practice-using-plant-protection-products</p> <p>Ireland</p> <p>http://www.pcs.agriculture.gov.ie/plantprotectionproducts/useofplantprotectionproducts/</p> <p>It is your responsibility to ensure that the person applying pesticides is correctly trained and holds the appropriate specified certificate of competence or is working under the direct supervision of a person who holds the specified certificate of competence</p>

3. Protection of watercourse from stock and alternative stock drinking points

3.1	Stock fencing on watercourses
Aim	Stock fencing of watercourses will prevent poaching of river banks by livestock which will reduce the amount of sediment entering the watercourses. This could lead to improved water quality in keeping with Water Framework objectives. This is important for the health of fish, vegetation and birdlife. It also means lower treatment costs for drinking water.
Action	<p>A watercourse is defined as any defined channel that can convey water, even if it is periodically dry. This includes, rivers, streams, open drains, ditches/sheughs.</p> <p>For rivers and streams, the fences must be a <u>minimum of 1.5 metres</u> from the edge of the channel and should stop animals getting into the water. Only watercourses marked on the Source to Tap Farm Grants map viewer (https://www.sourcetotap.eu/farm-grants/) are defined as rivers and streams and require the minimum set back distance of 1.5 metres.</p> <p>For open drains, ditches/sheughs, the fences must be placed a <u>suitable distance back from the channel edge so as not to compromise bank stability</u>. Avoid situations where banks are likely to be undermined by erosion from the watercourse. If this happens, the fence will have to be moved back and put up again one metre on average from the top of the bank. The fence should stop animals getting into the water.</p> <p>Fencing must be stock-proof, fit for purpose (see below) and erected with permanent stakes. Your Project Officer can help advise on the best fencing options to suit your farm. Fencing options could include:</p> <ul style="list-style-type: none"> • 4 strands of barbed wire or 2 strands of barbed wire and sheep netting with posts no more than 3.5 metres apart

	<ul style="list-style-type: none"> • For a high tensile wire fence use 6 lines of wire. Posts must be placed no more than 12 metres apart for sheep and no more than 6 metres apart for cattle. <p>In areas prone to flooding other fencing options may be considered.</p> <p>Fences can include access points.</p>  <p><i>Figure 6: Example of watercourse fencing.</i></p>
<p>Additional notes</p>	<p>Posts must be new and have a potential 15-year life, clearly indicated on the manufacturer or supplier's literature/invoice/receipt.</p> <p>Livestock are not allowed to graze the margin.</p> <p>The margin may be mown but not between March 1st and August 31st.</p>

3.2	Tree Planting next to Watercourses
Aim	Appropriately located trees can reduce water pollution by slowing the flow of surface water from nearby fields and protecting banks. This will reduce soil and other pollutants from entering the watercourses. This is important for the health of fish, vegetation and birdlife. It also means lower treatment costs for drinking water.
Action	Planting of native broadleaved trees next to rivers, streams and open drains to provide shade and protection from agricultural management activity on nearby fields. Planting densities should be a minimum of 4 saplings per metre.
Additional notes	Source to Tap Project Officers can provide advice on the native trees that will best suit your farm.

3.3	Alternative Stock Drinking Points - Water Trough (Including base)
Aim	To provide drinking points in fields which have had the waterways fenced out to reduce soil and pollution entering the river, stream or open drain.
Action	<p>If you have used Item 3.1 to fence out a watercourse, this item can be selected to fund one drinking trough in that field.</p> <p>The trough must be:</p> <ul style="list-style-type: none"> • At least 20 metres away from watercourse, 50 metres from a spring/borehole or 250 metres from a borehole used for household or food processing. • Water troughs should be placed in an appropriate area within the field so that they themselves do not become a source of pollution. • The trough must be fitted onto a hard base made of galvanised steel, concrete, spray moulded glass reinforced cement (GRC), or polyethylene. • The trough and its base must be placed on firm standing put in around the base of the trough. Where the cattle will stand should not be concrete but rather hard fill to avoid creating an area that can become soiled with high risk of run-off. <p>To install the trough:</p> <ul style="list-style-type: none"> • The area where the drinking trough is being installed should be dug out to a minimum width of 2.5 metres and depth of 150 millimetres or to the bedrock layer • This cleared area should be overlaid with a geo-textile membrane and a 150 millimetres layer of well compacted hard core laid down. If there is a requirement for a thicker

	<p>depth of hard core, successive layers (each 150 millimetres thick) should be laid down and well compacted.</p> <p>This costs for this item includes the base, all necessary supply pipe and fittings. The supply pipe could be made of polyethylene or UPVC and must be laid underground at a minimum depth of 800 millimetres. The pipes and pipe joints must be water tight and joints made of brass or plastic.</p>
<p>Additional notes</p>	<p>If you intend to use the public water supply, you must comply with The Water Supply (Water Fittings) Regulations 1999 (as amended) if located in Northern Ireland or the Water Services Act 2014 if located in Ireland.</p> <p>If water is taken from a borehole, well, or watercourse the landowner may require a licence depending on the quantity abstracted.</p> <ul style="list-style-type: none"> • Farmers in Northern Ireland, refer to the <u>Water Industry Installation Guide: Agricultural Premises</u> for further guidance. <p>Your Project Officer can help with this.</p>

3.4	Alternative Stock Drinking Points – Cattle Operated Pasture Pump (Including base)
Aim	To provide drinking points in fields which have had the watercourses fenced off to reduce soil and pollution entering the river, stream or open drain.
Action	<p>If you have used Option 3.1 to fence out a watercourse, this option can be selected to fund the required number of pasture pumps to serve your stock in that field.</p> <p>The item must be :</p> <ul style="list-style-type: none"> • Based on a firm base (hard standing) to minimise soil poaching. • The area dug out around the pump should extend to a minimum of 1 metres² and the firm standing put in around the base of the pump, on which the cattle will stand should not be concrete but rather hard fill so as to avoid creating an area that can become soiled with high risk of run-off. • Allow for cattle to use their nose to push a lever that pumps water into a small bowl or reservoir. • Should be securely anchored to restrict movement. <div data-bbox="520 1218 1150 1688" data-label="Image"> </div> <p><i>Figure 7: Cattle operated pasture pump. Courtesy of Restore Rivers EU Project</i></p> <p>The costs for this item include the concrete base, all necessary supply pipe, fittings and/or a solar power unit. The supply pipe could be made of polyethylene or UPVC and must be laid</p>


	<p>underground at a minimum depth of 800 millimetres. The pipes and pipe joints must be water tight and joints made of brass or plastic.</p>
<p>Additional notes</p>	<p>If you intend to use the public water supply you must comply with The Water Supply (Water Fittings) Regulations 1999 (as amended) if located in Northern Ireland or the Water Services Act 2014 if located in Ireland.</p> <p>If water is taken from a borehole, well, or watercourse the landowner may require a licence depending on the quantity abstracted.</p> <ul style="list-style-type: none"> • Farmers in Northern Ireland, refer to the <u>Water Industry Installation Guide: Agricultural Premises</u> for further guidance. <p>Your Project Officer can help with this.</p>


3 Reduction in surface flow across farm

4.1	Gateway relocation
Aim	Compaction and poaching caused by machinery and livestock at gateways can be a source of soil and pollutants entering nearby rivers, streams and open drains. Re-routing farm tracks through new gateways can significantly reduce this risk.
Action	<p>This item can only be used where the existing gateway is diverting surface flow directly into a nearby river, stream or open field drain. The old gateway must be made stock proof and put out of use by re-routing tracks so that it no longer allows for surface flow of water. The new gate must be fitted to the following guidelines:</p> <ul style="list-style-type: none"> • Be at least 3 metres wide • Be made of either timber or galvanized steel (including both hanging and slam posts) • New hanging and slamming posts should be used. If gateposts are made of timber, they must be pressure treated (softwood) or untreated (hardwood) • Swing freely • Have appropriate latches, not wire, twine or rope.
Additional notes	<p>This item cannot be used on a public right of way, highway, byway or historic routeway.</p> <p>Any new gateways that give access onto roads will need planning permission.</p>

4.2	Improvement of farm tracks and access routes
Aim	<p>An open channel is the most effective way of catching run-off from a track as it can be easily cleared of accumulated silt and debris. This item will protect the track surface and any associated gateway areas to reduce the risk of soil, nutrients and pesticides reaching nearby rivers, streams and open drains. This is important for the health of fish, vegetation and birdlife. It also means lower treatment costs for drinking water.</p>
Action	<p>Farm tracks</p> <p>This item includes the excavation of a channel across the width of the track to a minimum depth of 100 millimetres and widths of 100-250 millimetres. The depth and spacing of these cross channels will depend on the volume of water that needs to be caught, which will depend on the track construction, the slope of the track and the amount of rainfall. It may be appropriate to construct the channel in concrete with a gridded top which must be at least 150 millimetres wide.</p> <div data-bbox="440 1144 1193 1704" data-label="Image"> </div> <p><i>Figure 8: Cross channels on upgraded trackway</i></p>

	<p>Access Routes</p> <p>Where the track involves an access route or gateway, this item will include the cost of resurfacing the gateway. The re-surfaced area should be at least the full width of the gateway multiplied by the length of the gate into the field (opened at 90 degrees)</p> <p>In many cases this area may need to be extended to accommodate specific circumstances and will relate to the type and frequency of vehicle and livestock movements.</p> <p>The following specifications should be met:</p> <ul style="list-style-type: none"> • To comply with the aim of this item, the construction of the channel and any associated cross tracks should ensure that run-off only goes to fields and not into a waterway if a waterway is located at one side of the track. • The area should be excavated to a minimum depth of 150 millimetres, or down to a naturally occurring sub-base, the depth of which will vary according to the type of ground • The excavated soil should be spread on the verges of the field track and profiled to permit drainage • A geotextile membrane should be laid over the excavated area • Aggregate/ hardcore should be applied to a minimum consolidated depth of 150 millimetres. The depth depends on the soil type, but the depth of existing ruts can be used as a guide • If there is a requirement for a thicker depth of hardcore, successive layers (each 150 millimetres thick) should be applied • The whole of the hardcore area should be well compacted.
Additional notes	None

4.3	Clean and dirty water separation
Aim	Rainwater runoff from roofs and clean areas needs to be caught before it comes into contact with dirty areas and potentially becomes contaminated. This stops larger amounts of water becoming dirty.
Action	<p>For this item clean water is defined as water from roofs and dirty water is defined as water from yards. The suitability of this item will be determined from your WEMP.</p> <p>This information will then be assessed against the appropriate rainfall figures for your area to determine whether a clean and dirty water separation system is required on your farm to improve water quality.</p> <p>Dirty water separation could include using kerbs and adjusting drains and gutters on the farm yard to limit water from dirty areas and clean water mixing.</p>  <p>Figure 9: Example of using kerbs for water management on farm</p> <p>The Source to Tap Project Officer can provide support on the best system for your farm.</p>
Additional notes	None


4.4	Sedimentation traps and Interception ponds
Aim	Sediment ponds/traps are designed to trap run-off from fields or farmyards. Sediment ponds/traps can trap large volumes of sediment and contaminants (pesticides and soil) which could make their way into watercourses and affect water quality.
Action	<p>The placement and location of this item will be outlined in the WEMP and should only be used when other soil erosion control measures to prevent erosion and sedimentation cannot be applied.</p> <p>General guidelines are as follows:</p> <ul style="list-style-type: none"> • It is preferable to have a number of small ponds and traps around the farm rather than a single larger feature • Do not apply to already existing ponds, areas of high biodiversity value or areas of existing archaeological or historic value • Size of pond/trap depends on soil type and runoff volumes that are to be intercepted • For large scale sediment ponds, advice from soil and water or a civil engineer should be sought • Excavated topsoil should be spread on top of embankments  <p><i>Figure 10: A sediment trap. Courtesy of Norfolk Rivers Trust.</i></p>
Additional notes	Regular maintenance will be required on sediment ponds/traps including removal of sediment as required.

	<p>The regulatory authorities may need to be contacted if sediment trap becomes contaminated through infrastructure failure or machinery breakdown. If this should happen, farmers in Northern Ireland should contact the Northern Ireland Environment Agency at Tel: 0845 3020008 and email: nieainfo@daera-ni.gov.uk, farmers in Ireland should contact the Environment Protection Agency at their Head Office on Tel: (053) 916 0600 and email: info@epa.ie</p>
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4 Peatland Management

5.1	Drain blocking
Aim	Blocking artificial drains on peatland slows the flow of water through the peat soil, reducing the amount of nutrients, soil being leached into watercourses. Raising the water table in peatlands also supports the growth of bog mosses which will stabilise the system, creating more peat and resulting in the absorption of more greenhouse gases from the air.
Action	<p>Where appropriate, a Peatland Management Plan (item 1.2) will be developed alongside of the WEMP. This may include drain mapping and assessment.</p> <p>With the support of the Source to Tap Project Officer, this eligible item will enable the hiring of a specialist trained contractor to carry out drain blocking on the holding using the restoration techniques outlined by the IUCN Peatland Programme, which include for example:</p> <ul style="list-style-type: none"> • Installation of peat dams on narrow drain channels • Installation of wooden or PVC dams on wider drain channels <div data-bbox="491 1245 1126 1720" data-label="Image"> <p>The image shows a yellow Hyundai excavator with a black bucket, positioned on a peatland. The excavator is actively digging and moving dark peat soil to create a dam across a narrow, shallow drain channel. The surrounding landscape is a grassy peatland under a cloudy sky.</p> </div> <p><i>Figure 11: Example of peat dam creation on narrow drain. Courtesy of Montgomeryshire Wildlife Trust</i></p>
Additional notes	Depending upon the depth of the drain channel, heather bales, timber and stone can be used to strengthen the dams.

5.2	Restoration of peat without plant cover - nurse crop
Aim	By restoring peat without plant cover, less peat and silt will end up in the streams and rivers downstream affecting your farm and the local environment. This is important for the health of fish, vegetation and birdlife. It also means lower treatment costs for drinking water.
Action	<p>Where appropriate, a Peatland Management Plan will be developed alongside of the WEMP.</p> <p>A nurse crop is a crop that stabilises the soil surface and prevents establishment from competitive plant species to allow for the natural regeneration of the peatland plants for example, Common heather and Hare's tail cotton grass.</p> <p>With the support of your Source to Tap Project Officer, this eligible item will enable the hiring of a specialist trained contractor to carry out peat restoration of peat without plant cover using a nurse crop using the restoration techniques outlined by The Irish Peatland Conservation Council.</p> <div data-bbox="472 1155 1390 1458" data-label="Image"> </div> <p><i>Figure 12: Common Heather and Hare's tail cotton grass. Courtesy of Montgomeryshire Wildlife Trust</i></p>
Additional notes	None

5.3	Restoration of peat without plant cover - brash spreading
Aim	<p>The brash will form a skin over the peat without plant cover to protect it against erosion. The brash will also provide a better environment for seeds to grow in as they are protected from the harsh weather.</p> <p>By restoring peat without plant cover, less peat and silt will end up in the streams and rivers downstream affecting your farm and the local environment. This will help improve water quality.</p>
Action	<p>Where appropriate, a Peatland Management Plan will be developed alongside of the WEMP.</p> <p>Brash spreading is the process of spreading harvested heather material (or other plant material where appropriate) to protect the peat surface and provide cover for seed within the brash from the wind or birds. This could be sourced on farm or bought in by the contractors.</p> <p>With the support of your Source to Tap Project Officer, this eligible item will enable the hiring of a specialist trained contractor to carry out restoration of peat without plant cover through brash spreading on the farm using the restoration techniques outlined by The Irish Peatland Conservation Council.</p>  <p><i>Figure 13: Brash Spreading. Courtesy of Alistair Lockett</i></p>
Additional notes	None

5 Other

6.1	Farmer Innovation
Aim	This item is for you to share your ideas with the Project Officer. If the idea helps protect the watercourses the Project Officer will work with you to find the best method to put your idea into practice.
Action	<p>The Source to Tap pilot Land Incentive Scheme recognises that all farms are different, and the list of items may be unsuitable. The 'Farmer Innovation' item offers farmers an opportunity to suggest an option to improve water quality.</p> <p>This item can be discussed with your Source to Tap Project Officer during the creation of the WEMP and inclusion will depend upon the potential impacts on MCPA levels and sediment in water.</p>
Additional notes	None

Force Majeure

Where an applicant is unable to continue with their Source to Tap commitments due to reasons beyond their control, a case may be made under the force majeure provisions of the agreement. The following may be accepted as force majeure events:

- the applicant's death or long-term incapacity;
- the state or an authority using its powers to take all or a material part of the applicant's farm for public use or benefit (i.e. expropriation) if such expropriation could not have been anticipated before the applicant applied for funding from the Source to Tap Scheme;
- a natural disaster materially and relevantly affecting the applicant's farm;
- the accidental destruction of livestock buildings or other relevant buildings on the applicant's farm e.g. by fire;
- an outbreak of disease affecting all or a material and relevant part of the crops, trees or livestock on the applicant's farm.

The force majeure provisions are set out in the Scheme Terms & Conditions.

Breach of Agreement

If you are in Breach of your Agreement with the Source to Tap Land Incentive Scheme, this may result in your reimbursement claims not being paid and/or recovering reimbursement claims which have already been paid to you.

Some examples of things that would be a Breach of Agreement are:

- Refusing a Source to Tap Project Officer to inspect the eligible items with a reasonable notice given.
- Providing false or misleading information.
- Removal or relocation of capital items without permission from Source to Tap.
- Failure to maintain the installed items in reasonable good order for a minimum of 7 years.
- Failure to comply with standards set out in this document and/or the WEMP produced for your farm.

You should read carefully the Breach of Agreement provisions set out in the Scheme Terms & Conditions and the other documents which together form your Source to Tap Agreement.

State Aid

Expenditure under this Scheme may constitute State aid within the meaning of Article 107(1) of the Treaty on the Functioning of the European Commission. State aid will be paid in accordance with Article 14 of Regulation (EU) 702/2014 as published in the Official Journal of the European Union on 1.7.2014 [reference L193, pages 1 to 75]. The aid contributes towards the achievement of the agri-environment-climate objectives specified in the Northern Ireland Rural Development Programme and consequently aid for non-productive investments shall not exceed 100% of the eligible costs in accordance with Articles 14(3)(d) and 14(14) of Regulation (EU) 702/2014.

Advisory services to farmers in relation to the Water Environment Management Plan and Peatland Management Plan will be in accordance with Article 22 of Regulation (EU) 702/2014 and will be limited to a maximum of €1,500 per farmer per advice.

Aid falling outside of the scope of Article 14 will be paid in accordance with de minimis Regulation (EU) 1408/2013 as published in the Official Journal of the European Union on 24.12.2013 [reference L352, pages 9-17]. Under this Regulation de minimis aid to undertakings in the agricultural sector must not exceed €15,000 per single undertaking in the current and previous 2 fiscal years.

Contact us

To arrange a farm visit by one of our Project Officers, or to find out more about the project visit www.sourcetotap.eu

Write to:

Source to Tap Project Office
c/o Waterways Ireland Headquarters,
2 Sligo Road,
Enniskillen,
Co. Fermanagh,
BT74 7JY,
Northern Ireland.

Email us:

info@sourcetotap.eu

Or

Call one of our Project Officers:

Lisa Stewart (+44 (0)7948 354026), Lyndsey Herron (+44 (0)7948 354027), Patrick Gallagher (+353 (0)8791 47844).