United Utilities

# Wonderful Windermere Methodology Document

## May 2025

### Version control

| Version | Date of issue | Methodology changes |
|---|---|---|
| 1.0 | May 2025 | United Utilities' draft version for consultation |

United Utilities

Water for the North West

# Contents

# 1. Background to this methodology

The PR24 Wonderful Windermere bespoke performance commitment (PC) incentivises United Utilities Water Ltd (UUW) to reduce phosphorus emissions to the Windermere catchment through interventions relating to third-party assets, agricultural and other land. The PC requires UUW to produce, review and revise a methodology in relation to certain matters set out in the PC.[1] This document sets out that methodology.

UUW proposes an ambitious programme of work, targeting third-party sources of phosphorus entering Lake Windermere. The programme will identify and intervene at these sources and provide benefit to the environment by reducing the nutrient load from the catchment into the lake.

UUW aims to support the water quality, long-term resilience and heritage of Windermere, one of England's most significant and iconic waterbodies, through the stewardship of catchment-wide solutions. Harnessing the expertise that UUW has developed in wastewater treatment and innovative network management, UUW will apply this within the Windermere catchment to drive improvements that customers and communities expect to see.

Under drivers for the 25-year environment plan, UUW has proposed significant investment at Wastewater Treatment Works (WwTWs) in the Windermere catchment to reduce phosphorus. However, UUW aims to do more. The company will do this by taking a whole catchment approach.

UUW recognises that treatment works improvement alone will not achieve its customers' high expectations for the protection of the catchment. The Wonderful Windermere PC takes a holistic approach to phosphorus removal and looks beyond UUW's assets to comprehensively reduce the nutrients input from multiple sources into the catchment.

[1] The Wonderful Windermere performance commitment can be found at PR24 final determinations performance commitment definitions - Ofwat

# 2. Purpose of this methodology

The purpose of this document is to describe the method by which the benefit in terms of a reduction in total phosphorus entering the environment shall be enumerated, verified and reported in relation to each intervention made by UUW.

This methodology sets out the principal areas of opportunity for phosphorus reduction which have been identified and for each area stipulates the approach to:

- identifying sources of phosphorus that may be suitable for intervention;
- quantifying the base load of phosphorus being emitted by a source prior to intervention;
- identifying the potential reduction in phosphorus emissions achievable at a source;
- quantifying the residual load of phosphorus emissions to the Windermere catchment after intervention at a source;
- reviewing and revising the standard modelled values of phosphorus loads; and
- deciding which interventions should be proposed as qualifying interventions, subject to Ofwat's approval.

For the purpose of this methodology, a "qualifying intervention" is an intervention which the governance group considers should, subject to Ofwat's approval, count towards the company's performance in relation to the Wonderful Windermere PC. An intervention shall be considered a qualifying intervention following confirmation by the governance group of satisfactory delivery of the intervention. See Governance (Section 9) for more details.

# 3. Scope

In accordance with the requirements of the Wonderful Windermere PC, UUW has produced this methodology document which covers:

**Geographical area for potential interventions**
This is the Windermere catchment, including waterbodies recognised in the Water Framework Directive, set out in Figure 1.

**The processes for making interventions relating to third-party assets and land**

The Decision Support Tree, set out in Figure 2, outlines the high-level process for implementing solutions as part of this PC, from identifying potential assets/catchments, through to the sampling and the implementation of solutions.

**Sampling and modelling for different interventions**

Section 1.1 of the Wonderful Windermere PC requires that reductions in phosphorus will be measured through sampling before and after an intervention. Sections 6 and 7 of this methodology set out the approach that UUW will take to establish the baseline phosphorus load for each identified source and monitor the reduction in phosphorus loading made by each intervention. Subject to the Environment Agency and the governance group's approval, if sampling or monitoring is prevented or not possible, or if it is a catchment or agricultural intervention, outputs from modelling will be used to determine the amount of phosphorus removed.

**Other future innovative interventions**

As the company progresses through the 2025-30 period and potential new opportunities arise, UUW will ensure that other interventions that may improve phosphorus removal will be trialled, such that changes to this methodology may be made, subject to the requirements of the Wonderful Windermere PC.

**Additional non-agricultural catchment interventions**

These are catchment interventions that are non-agricultural but UUW believes could be implemented to improve phosphorus removal in the Windermere catchment. Potential interventions are set out in Table 6.

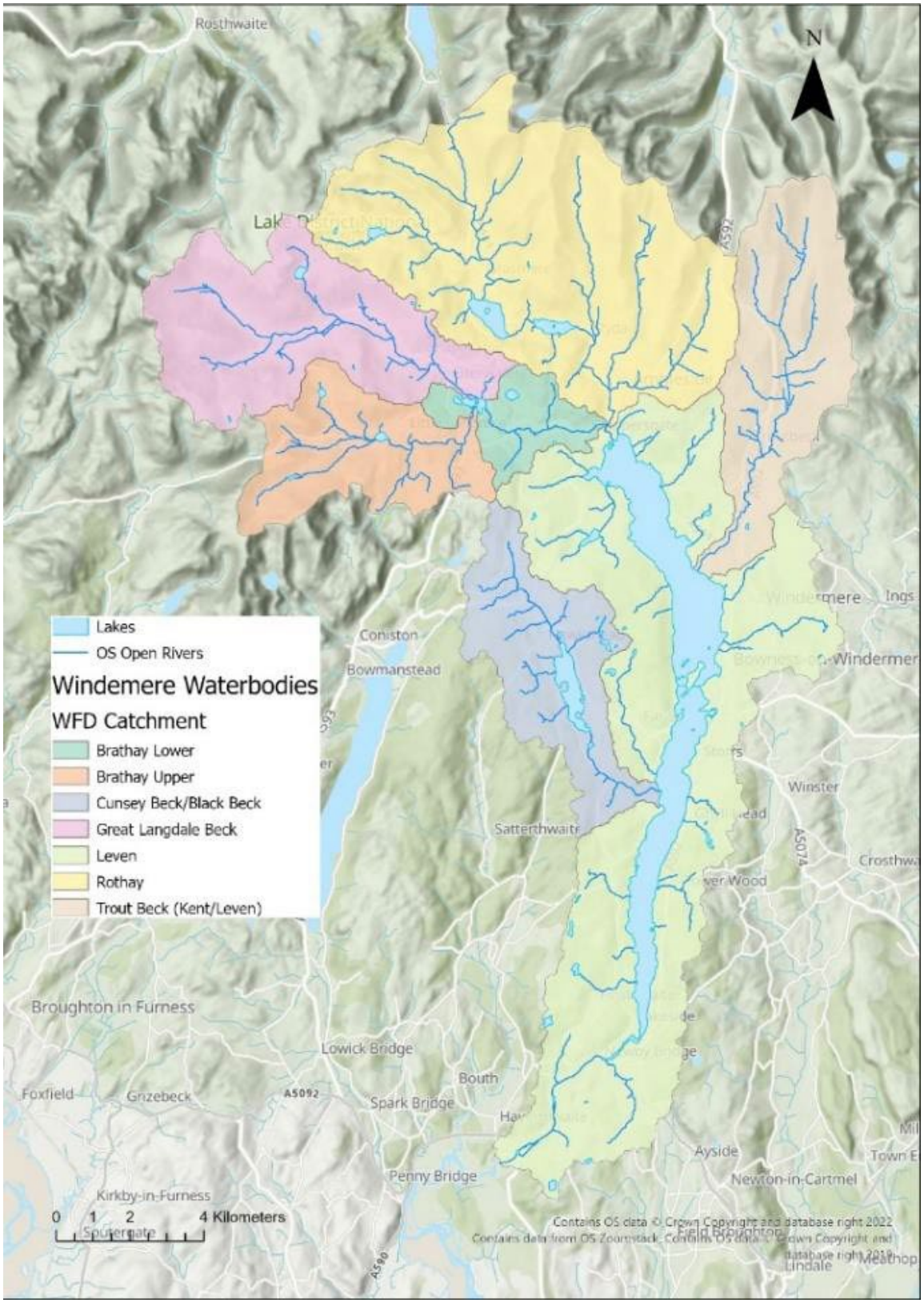
**Governance**

Section 9 sets out governance arrangements in relation to the identification and base load assessment of sources, the sampling and monitoring of interventions, the process for considering which interventions should count towards the company's performance in relation to the Wonderful Windermere PC and reviews of modelled phosphorus load values.

# 4. Geographical area for potential interventions

Figure 1 shows an agreed target area for phosphorus reduction. Interventions to reduce phosphorus in this catchment area have potential to make a positive impact on the Windermere catchment.

***Figure 1: Windermere catchment map***



# 5. Overview of interventions

In general, third-party assets (septic tanks and private WwTWs), agricultural and other land use are considered as suitable sources of phosphorus for interventions within the Windermere catchment area shown in Figure 1.

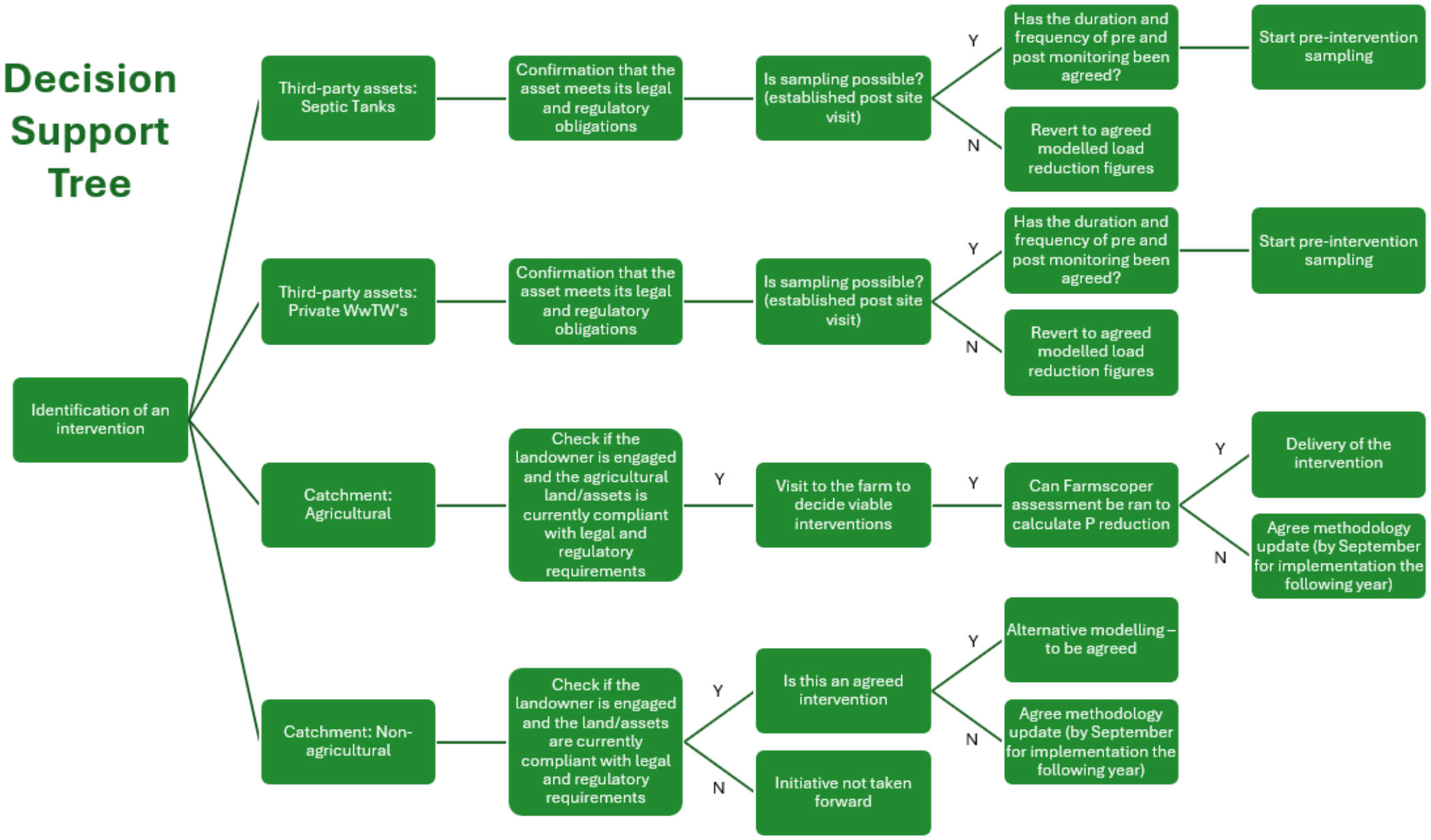
The decision support tree (Figure 2) outlines the procedure for identifying a specific source's suitability for intervention and the steps that must be taken in line with the Wonderful Windermere PC before making an intervention. It requires that performance is measured through sampling or by modelled values where sampling is prevented or not possible. Site sampling and modelling are detailed further in sections 6 and 7.

Agricultural and land-based interventions include, for example and as set out in tables 4, 5 and 6:

- minimising the volume of dirty water produced, managing woodland edges and establishing new hedges (farm interventions for which the potential phosphorus saving can be modelled using the Farmscoper upscale tool);
- repairing weeping walls, covering feeding yard and concreting open yard (farm interventions for which the potential phosphorus saving cannot be modelled using the Farmscoper upscale tool, and will instead need a defined methodology approved if they are to be implemented); and
- establishing in-field grass buffer strips, riparian buffer strips and new hedges (non-agricultural catchment interventions).

Whilst UUW have not identified any non-agricultural catchment interventions, should they arise then the same assurance process will be followed as for agricultural interventions, including the modelling and approval of the intervention.

*Figure 2: Decision Support Tree*



# 6. Treatment interventions on septic tanks and private WwTWs

Unless prevented from doing so, UUW will measure base phosphorus and monitor the performance of interventions by sampling before and after an intervention. If UUW is prevented from sampling, modelled values will be used according to the agreed methodologies in the below section.

## 6.1 Site sampling – domestic septic tanks and private WwTW

UUW will ensure that efforts relating to third-party assets will deliver performance beyond the legal obligations and will not be used to enable third parties to meet their legal obligations. Legal obligations for domestic septic tanks will include General Biding Rules as amended from time to time (GBR) and for private WwTWs it will include the environmental permit and discharge permit. It will be determined by the EA, through an EA approved assessment, that the asset is compliant and meets the legal and regulatory obligations. Once there has been confirmation from the EA that the asset is compliant, then UUW will be able to intervene under this performance commitment. In the case that when UUW first considers an asset and it is not fully compliant with its legal obligations but later becomes so through work by others, this asset will then become eligible for further interventions.

UUW will complete a site visit investigation to understand if an intervention can be delivered and if the septic tank/private WwTWs can be safely and reliably sampled. When an asset meets its legal obligation and there are no constraints which prevent UUW from reliably and safely taking samples, UUW will commit to spot sampling to determine the baseline and measure the intervention performance on an individual asset basis. This aligns with the EA's standard practice for sampling programmes.

UUW shall use real data to verify total phosphorus removal. This should be proportionate to the size of the intervention. The duration and frequency of spot sampling prior to and after implementation is outlined in Table 1. UUW will ensure the sampling approach aims to include varying throughflow rates where possible. Sampling will align with the relevant sample guidance, such as private WwTW sampling being based on 'Waste water treatment works: treatment monitoring and compliance limits' for sites with a Population Equivalent (PE) under 2,000. As data is being gathered to verify the phosphorus removal achieved by the intervention, it must be representative. Following delivery of an intervention and sampling completion, a report will be produced which details the sample results, the analysis and the calculated phosphorus removal. Where this is prevented or not possible, the company will report in line with Section 6.2 below.

Where it is agreed with the EA that the duration and frequency of sampling is considered disproportionate to the intervention (for example, where post-intervention sampling consistently shows removal in line with predicted values), this will be documented and a revised sampling schedule will be agreed with the EA. Such decisions will be shared with the governance group.

***Table 1: Pre and post-intervention sampling expectations for interventions where sampling is possible***

| Year | 2025 and 2026 | | 2027 and 2028 | | 2029 | | All years |
|---|---|---|---|---|---|---|---|
| Intervention type | Pre intervention sampling | Post intervention sampling for sign off | Pre intervention sampling | Post intervention sampling for sign off | Pre intervention sampling | Post intervention sampling for sign off | Post intervention sampling for monitoring |
| Domestic septic tank | 1 per month from when intervention identified and confirmed until intervention.<br>(Not possible for data to be representative and deliver any interventions in year therefore modelled reduction will be used). | 3 samples spread over 2 months to avoid cluster sampling.<br>(Not possible for data to be representative and deliver any interventions in year therefore modelled reduction will be used). | 12 samples spread over 12 months to avoid cluster sampling. | 12 samples spread over 12 months to avoid cluster sampling.<br>This may be reduced if results are in line with predicted removals. | 12 samples spread over 12 months to avoid cluster sampling. | 3 samples spread over 2 months to avoid cluster sampling.<br>(Not possible for data to be representative and deliver any interventions in year therefore modelled reduction will be used). | A further 12 samples spread over 12 months to avoid cluster sampling. |
| Private WwTW | 1 per month from when intervention identified and confirmed until intervention.<br>(Not possible for data to be representative and deliver any interventions in year therefore modelled reduction will be used). | 3 samples spread over 2 months to avoid cluster sampling.<br>(Not possible for data to be representative and deliver any interventions in year therefore modelled reduction will be used). | 12 samples spread over 12 months to avoid cluster sampling. | 12 samples spread over 12 months to avoid cluster sampling.<br>This may be reduced if results are in line with predicted removals. | 12 samples spread over 12 months to avoid cluster sampling. | 3 samples spread over 2 months to avoid cluster sampling.<br>(Not possible for data to be representative and deliver any interventions in year therefore modelled reduction will be used). | A further 12 samples spread over 12 months to avoid cluster sampling. |
| Private WwTW (current EA sampling) | Past 3 years or 24 samples. | Either 12 samples or 1 year of samples. | Past 3 years or 24 samples. | Either 12 samples or 1 year of samples.<br>This may be reduced if results are in line with predicted removals. | Past 3 years or 24 samples. | 3 samples spread over 2 months to avoid cluster sampling.<br>(Not possible for data to be representative and deliver any interventions in year therefore modelled reduction will be used). | EA sampling schedule. |
| Domestic septic tank or private WwTW alternative | If it is possible to simultaneously sample before and after an intervention, this method can be used to measure the phosphorus base load and amount of phosphorus removed. In this case no sampling is required before the intervention has taken place as it will provide information on the phosphorus that would be entering the water course both without the intervention and with. This would be the preferred method due to its accuracy for measuring performance. However, it is expected opportunities for this will be limited due to practicalities of sampling before the intervention.<br>6 pre-invention and final effluent sample sets are required before the intervention can be claimed. | | | | | | |
| Catchment: Agricultural | As each catchment is different the exact details of the sampling required will be agreed as necessary with EA and the Love Windermere governance group. | | | | | | |
| Catchment: Non-agricultural | As each catchment is different the exact details of the sampling required will be agreed as necessary with EA and the Love Windermere governance group. | | | | | | |

The duration of pre intervention samples in years 1 and 2 differs from the remaining years in the 2025-30 period. This is because the PC definition was not published by Ofwat until late December 2024 with an instruction to agree the final methodology with the EA and get approval from Ofwat by 1st March 2025. UUW was not able to commence baseline sampling without confirmation of which assets would be considered as part of the PC.

In line with the performance commitment targets given in Table 2, UUW is committed to removing at least 9.5kg/y of phosphorus by 31st December 2025 and a further 28.5kg/yr by 31st December 2026. The company therefore proposes that best endeavours are made to start pre-intervention sampling as soon as a site is identified, and post intervention sampling is undertaken. If the pre and post sampling results are considered to be representative of the improvements made by an intervention, then the phosphorus reduction figures from the sample data will be used, subject to agreement with the governance group. However, if the pre and post sampling results are not considered by the governance group to be representative of the intervention's impact, modelled values will be used for the interventions in years 1 and 2.

***Table 2: Wonderful Windermere PC target Total Phosphorus removal***

| Tank Type | 2025 | 2026 | 2027 | 2028 | 2029 |
|---|---|---|---|---|---|
| Cumulative phosphorus removal (kg/y) | 9.50 | 38.00 | 38.00 | 57.70 | 77.40 |

To be able to claim the output in year 5, UUW must receive confirmation from the EA of acceptance for all remaining interventions by 31st December 2029. Therefore, UUW will reduce the monitoring required in year 5 as there will be sufficient data gathered in the previous 4 years to give confidence in the application of interventions. This enables UUW to maximise the number of interventions throughout the whole 2025-30 period. In year 5 the standard modelled values will be used for each intervention (Table 3). A report on all sample results will be produced annually (for the 1st September) which will provide a thorough analysis of each year's results. This will use the data from the individual reports produced at the end of each intervention. From this, recommendations for updating the modelled removal rate will be put forward and reviewed by the governance group, prior to claiming the updated modelled values for interventions being claimed in year 5.

If a third-party asset with an existing phosphorus permit has regular ongoing sampling for compliance purposes, then UUW will work with the EA to determine if past sampling data can be used to provide the baseline. Depending on the intervention type, and agreement with the EA and the affected third-party owner/ manager, if ongoing sampling is still required for permit compliance purposes, UUW will use this sample data to monitor the performance of the intervention.

### 6.1.1 Process Flow Expectations

- Either through direct engagement or partner activity, UUW will identify possible assets and asset owners who may wish to engage in interventions.
- The EA, either through direct assessment or review of approved third-party compliance assessment reports, shall confirm that the asset is currently compliant with legal and regulatory requirements.
- Working with the EA and key partners, UUW will undertake an assessment of whether the site will be suitable for sampling and monitoring. If permit compliance sampling is ongoing at the asset, this data may be used for performance reporting, subject to EA approval.
- UUW will sample the asset for the defined period prior to the intervention in accordance with Table 1.
- Samples taken throughout the period will be tested at accredited laboratories and results will be monitored both pre and post intervention.
- Intervention is completed and UUW will provide complete and accurate evidence of the intervention to the governance group, including sample results, to enable the governance group to decide whether the intervention should be a qualifying intervention.

- UUW will report the sum of the loads of all qualifying interventions against the Wonderful Windermere PC target for the applicable year of delivery of the intervention.

## 6.2 Modelling – domestic septic tanks and private WwTW

Where an intervention has been identified, but sampling is prevented or is not possible, this will be documented using the Non-Sampling Approval Form (Figure 3) in Appendix B which should be shared with the EA and the governance group.

In this situation, UUW will compile an asset assessment report of instances where sampling has been prevented. Reasons as to why UUW cannot sample at an asset could include (but is not limited to):

- availability of a suitable sampling location - it is likely many will discharge into soak aways without an opportunity to sample beforehand or directly into pipelines with no access;
- discharge frequency - small domestic sewage treatment works with little to no infiltration will discharge very small amounts in dry weather periods which will make it very difficult to obtain a sample. This is typically the period when the highest concentration of samples would be expected but will not be included in the analysis;
- potential confined space access;
- accessibility to the asset and/or sampling location; and
- other safety concerns (e.g. lifting, exposure to toxic environment).

If sampling is prevented or not possible at a given asset, the company will continue to review the possibility of sampling throughout the intervention and undertake on-site sampling if it becomes possible to do so at a later point.

The asset assessment report will be kept under review and updated regularly to ensure that it contains all instances of sampling being prevented. The updated report will be shared with key partnership organisations (including Love Windermere) and will be submitted at regular intervals to the governance group. The report will be submitted at a frequency that is agreed with the governance group and the EA. The frequency will be determined by the number of interventions being delivered.

Subject to approval by the EA and the governance group of the reasoning set out in the Non-Sampling Approval Form, modelled values will be used to report the base load phosphorus emissions and the outcome of the intervention in accordance with Section 6.2.1.

### 6.2.1 Modelling Load Contribution and Potential Phosphorus Removal

UUW will use both the modelled load and potential phosphorus reduction values outlined in Table 3. UUW apply different loads to domestic septic tanks and private WwTWs serving commercial properties to reflect the differing usage. The removal rates and values in Table 3 will apply for modelled interventions in 2025. As the availability of data increases with more interventions throughout the 2025-30 period, UUW will ensure that modelled values are being validated against sample results as part of this PC. If there is a material difference between the sample results and the modelled values, a proposal to change the modelled values will be deemed necessary and UUW will consult and agree with the EA on proposed revisions to the modelled values. UUW will request approval from Ofwat for the proposed change in the modelled values before the 1st September of the year before the calendar year when the proposed change is to be effective.

Both kilogram values relating to domestic septic tanks in Table 3 are based on using 2.2 as the average population served by a domestic septic tank. To calculate the load removed by interventions at a private WwTW, the reduction figure must be divided by 2.2 and multiplied by the population equivalent it serves.

By validating the removal rate values of implemented interventions against the theoretical modelled values used in this methodology, it may be possible to optimise the monitoring regime in future years as confidence in the data and the removal capacity of each intervention grows. This will allow more robust modelled values to be used in future. UUW will review the modelled values on an annual basis in the form of a report (outlined in section 6.1). The revised values will be agreed with the EA and submitted to Ofwat prior to the 1st September deadline. When more data is available, the variability in removal rates by technology/intervention type will be broken down to further inform modelled figures in future years.

***Table 3: Modelled phosphorus load values***

| Tank Type | Load kg/y | Removal rate | Reduction kg/y |
|---|---|---|---|
| Domestic | 1.3 | 65% | 0.85 |
| Private sewage treatment works | 1.14* | 65% | 0.74* |

The modelled phosphorus load values have been informed by the Viridian Logic Ltd report '*Windermere Water Quality Management Opportunities November 2022*[2].

*normalised to average occupancy of 2.2 for comparative purposes.

### 6.2.2 Process Flow Expectations

- Either through direct engagement or partner activity, UUW will identify possible assets and asset owners who may wish to engage in delivery interventions.
- The EA, either through direct assessment or review of approved third-party compliance assessment reports, shall confirm that the asset is currently compliant with legal and regulatory requirements.
- Working with the EA and key partners, an assessment of whether the site will be suitable for sampling and monitoring will be made.
- If sampling is prevented or not possible, UUW will submit a Non-Sampling Approval Form to the EA and the governance group for approval to use modelled values to report the base load phosphorus emissions and the outcome of the intervention. The asset will be added to the asset assessment report which sets out interventions where UUW is prevented from sampling, or it is otherwise not possible to do so.
- The intervention is completed. UUW obtains owner/manager confirmation of completion.
- UUW provides complete and accurate evidence of the intervention to the governance group, including modelled values, to enable the governance group to decide whether the intervention should be a qualifying intervention.
- UUW calculates the modelled load reduction for the relevant assets using the values in Table 3, based on asset performance beyond required obligations. For private WwTWs, this will be calculated to account for the population equivalent i.e. in the case of 50 population the modelled phosphorus load removed is 16.82kg/y.

50PE/2.2PE* 0.74kgP/y = 16.82kgP/y

- UUW reports the sum of the loads of all qualifying interventions against the Wonderful Windermere PC target for the applicable year of delivery of the intervention.

[2] See Appendix A, Annex A2 (reference sources)

# 7. Agricultural and land-based interventions

UUW will primarily assess phosphorus reduction from agricultural land using the ADAS Farmscoper modelling tool. Where an intervention could be applicable on non-agricultural land, UUW shall seek EA guidance to accurately calculate the benefits of any proposed interventions.

Farmscoper is a decision support tool that can be used to assess diffuse agricultural pollutant loads and quantify the impacts of farm mitigation methods on these pollutants. The tool can be used at a farm level as well as at the catchment scale.

## 7.1 Farmscoper methodology

The Farmscoper upscaling tool is designed to perform multiple farm-scale simulations to allow the generation of results for a catchment or area. UUW has previously used the Farmscoper upscale tool to quantify the potential phosphorus saving that can be made from farm interventions at the Windemere catchment.

The assessments were performed by Farmscoper experts and focused on the baseline, fair share requirement and the interventions over and above the agricultural fair share. When determining what action should be taken to improve or to prevent deterioration of the water environment, consideration should be given to the proportion each sector, business or individual contributes to the problem. Action to reduce pollutants should be targeted on a 'fair share' basis, whereby each sector, business or individual deals with its proportional contribution. This approach is rooted in the 'polluter pays' principle. Therefore the 'fair share requirement' means the proportion of the issue that agriculture contributes and must take action to reduce.

The Water Framework Directive waterbody catchments upstream of Lake Windemere were used to run the upscale model. To maintain anonymity within the Farmscoper model for smaller farms, some small catchments are joined to larger catchments such as combining Brathay Lower to Rothay.

The current approved list of interventions is the most up to date list available to UUW at the time of writing this methodology. Table 4 is a subset list that UUW used with prior and maximum implementation rates in its upscale modelling at Windermere which were most applicable in the catchment.

***Table 4: Subset list of interventions***

| Intervention | Prior implementation % | Max implementation % |
|---|---|---|
| Establish in-field grass buffer strips | 2 | 80 |
| Establish riparian buffer strips | 39 | 80 |
| Increase the capacity of farm slurry stores to improve timing of slurry applications | 2 | 100 |
| Minimise the volume of dirty water produced (sent to dirty water store) | 10 | 100 |
| Minimise the volume of dirty water produced (sent to slurry store) | 10 | 100 |
| Cover solid manure stores with sheeting | 2 | 100 |
| Use liquid/solid manure separation techniques | 2 | 100 |
| Fence off rivers and streams from livestock | 39 | 90 |
| Farm track management | 25 | 90 |
| Establish new hedges | 2 | 90 |
| Establish and maintain artificial wetlands - steading runoff | 2 | 100 |
| Establish tree shelter belts around livestock housing | 10 | 100 |

| | | |
|---|---|---|
| Management of woodland edges | 2 | 100 |

The prior implementation values were derived based on agricultural fair share requirements and where it was uncertain, Farmscoper model pre-set prior values were used in upscaling model.

Through using ADAS Farmscoper description[3] guidance, Phosphorus savings are calculated by:

With prior method implementation - with new method implementation (absolute values).

### 7.1.1 Farmscoper Methodology at Farm Level

UUW has used the Farmscoper upscale tool to complete an initial catchment scale assessment and understand the wider phosphorus saving potentials in the Windemere catchment. The next steps after this initial analysis are detailed below.

- To identify potential farms and appropriate agricultural interventions, UUW will collaboratively work with the organisation/farm. To understand the potential phosphorus reduction from selected local farms, the Farmscoper model will be used. In the farm level assessment, UUW will apply the below principles to assess and quantify the phosphorus savings that can be made from selected interventions. Farm interventions should take place in the same geographical location, preferably upstream of the receptor (Lake Windermere).
- As with all interventions that form part of this PC, any delivery must be above and beyond the legal requirements applicable to the relevant farm through regulation and fair share. This will require any asset to adhere with all the requirements of the Reduction and Prevention of Agricultural Diffuse Pollution (England) Regulations 2018 (Farming Rules for Water) as well as other relevant legislative requirements, for example the Silage, Slurry and Agricultural Fuel Oil (SSAFO) Regulations 2010, the Nitrate Vulnerable Zones (NVZ) Regulations 2015, the Environmental Permitting Regulations 2016, and the Water Resources Act 1991. UUW will only implement interventions that are over and above the legal requirements applicable to the relevant farm.
- The individual farm level Farmscoper assessment will be based on a site visit to each farm to reflect the actual farm operation. This will assess the current situation of the farm and review the capacity, condition and suitability of infrastructure for managing and storing slurry/manure/effluent to reduce the risk of point source pollution and improve efficiency of use, resulting in a reduction in nutrient losses.
- The farm management data collected will be fed into a Farmscoper model by the assessor. Two separate Farmscoper workbooks ("Create" and "Evaluate") are produced for each farm UUW are working in collaboration with. A copy of both workbooks will be kept as evidence as part of the sign-off procedure.
- Farmscoper "Baseline" losses is the scenario with no mitigation measures implemented. "Prior Implementation" is an estimate of the present uptake of a method ("With Priors"). If a mitigation method is applied in a scenario, then its implementation will be raised from the "Prior Implementation" value up to the intended implementation value (which is Set1).
- There are maximum likely levels for certain measures that are lower than 100%. For such measures, the EA suggests reducing the maximum implementation values to 85% to avoid being overly optimistic in the modelling. These values may be adjusted based on actual farm specific information. The exception to this is capital items that are either present or absent such as covering slurry cover stores. This will be decided by the Farmscoper assessor and confirmed by the EA as part of the sign-off procedure.

**Key steps:**

Collect and input farm data to develop the "baseline",

Input prior measures to develop the "with priors",

[3] ADAS Farmscoper 2021 Document: https://adas.co.uk/wp-content/uploads/2022/01/FARMSCOPER5_Description.pdf

Input the proposed additional measures to develop the "set 1".

- In the standard procedure, UUW calculates the difference between the priors and the set 1 and that is the reduction the water company can claim.

### 7.1.2 Process Flow Expectation

- UUW identifies a potential farm, through prior analysis, that may be suitable for intervention.
- The EA, either through direct assessment or review of approved third-party compliance assessment reports, shall confirm that the farm is currently compliant with legal and regulatory requirements.
- UUW engages through partnership organisations and landowners/third parties, for consent to intervene.
- UUW conducts a site visit to the farm to assess current farm operation and gather data to reflect the actual farm operation. Phosphorus baseline and potential reductions will be assessed by a Farmscoper expert for each individual farm.
- UUW compiles information on proposed interventions that go beyond what is expected of the farm's legal obligations.
- UUW submits proposed interventions to the governance group and landowner for approval, whilst the modelling values will be endorsed by the governance group.
- The approved intervention is carried out in collaboration with the farm, with UUW being accountable for the delivery of the approved intervention. UUW seeks sign-off from the landowner confirming completion of the intervention.
- UUW provides complete and accurate evidence of the intervention to the governance group, including modelling values, to enable the governance group to decide whether the intervention should be a qualifying intervention.
- UUW calculates and reports the sum of the loads of all qualifying interventions against the Wonderful Windermere PC target for the applicable year of delivery of the intervention.

## 7.2 Other interventions not available on Farmscoper

Using Farmscoper is UUW's preference, however, some intervention measures suggested by the EA are not an option in Farmscoper. For such interventions, UUW will agree a methodology with the EA and share the methodology with the farm we are working in collaboration with, to account for the benefits that the measures would bring *e.g. Use RB209 modelled data with information from a farm visit to make values representative.* UUW will agree the methodology with the EA and consult with and request approval from Ofwat ahead of implementation. Proposed interventions that are expected to be implemented from 1 January 2026 will need to be approved prior to the 1st of September the year before the calendar year when the proposed change is to be effective. Examples of farm measures that are not options on Farmscoper and will need a defined methodology approved if they are to be implemented, are included in Table 5.

***Table 5: Interventions not modelled in Farmscoper***

| Intervention | Notes: |
|---|---|
| Curb stone apron around slurry store reception pit | New Methodology to be created if this intervention is implemented |
| Repairs to weeping walls | New Methodology to be created if this intervention is implemented |
| Cover feeding yard | New Methodology to be created if this intervention is implemented |

| | |
|---|---|
| Concrete open yard | New Methodology to be created if this intervention is implemented |
| Arable reversion to species rich grassland | New Methodology to be created if this intervention is implemented |

## 7.3 Non-agricultural catchment interventions

Where an intervention can be implemented on non-agricultural land, modelled values will be agreed with the EA prior to the intervention being implemented and UUW will seek the EA's guidance to effectively calculate the benefits of the interventions. When the opportunity arises to implement an intervention, UUW will follow the same process that has been followed for other catchment interventions. This means that for non-agricultural interventions, UUW will use modelling figures (Table 6) to report the performance of the interventions, with the modelling figures being approved and endorsed by the governance group after an initial site visit has taken place to determine the inputs. A list of non-agricultural catchment interventions that has been agreed with the EA and the governance group and approved by Ofwat is included in Table 6.

***Table 6: Non-agricultural catchment interventions***

| Intervention | Notes |
|---|---|
| Establish in-field grass buffer strips | |
| Establish riparian buffer strips | |
| Loosen compacted soil layers in grassland fields | |
| Establish new hedges | |
| Establish and maintain artificial wetlands - steading runoff | |
| Management of woodland edges | |

### 7.3.1 Catchment sampling

As noted above, modelled phosphorus removal will be used for catchment interventions for this performance commitment. To provide assurance to the governance group on the impact of catchment interventions, UUW will work closely with the EA, where appropriate, to promote catchment sampling at watercourses affected by these interventions. Due to the complexity of catchment sampling, an appropriate sampling schedule and location will need to be agreed upon with the governance group. Results from the catchment sampling will be shared with interested stakeholders and the governance group.

### 7.3.2 Emerging Technologies and Other Interventions

As referenced in Section 6, at the time of first developing this methodology, UUW used the latest and best available information to develop a methodology for calculating phosphorus reductions from the main known sources of phosphorus inputs from land. UUW does not anticipate implementing any catchment interventions that have not already been mentioned above in 2025. However, if over the 2025-30 period technologies or novel methods emerge that would support additional phosphorus removal, UUW would look to work in conjunction with the EA to revise the performance commitment methodology to reflect these opportunities. This would be agreed ahead of 1st September in the year preceding the implementation of those interventions in line with the PC definition and, subject to Ofwat's approval, UUW will update the methodology document.

# 8. Specific exclusions

## 8.1 First time sewerage

No benefit resulting from intervention taken as a result of an application for first time sewerage under section 101a of the Water Industry Act 1991 shall be eligible for inclusion under this methodology.

## 8.2 Land owned by United Utilities

This performance commitment does not include interventions at assets and land owned by United Utilities.

## 8.3 Third-party asset compliance

For non-water industry phosphorus sources, only third-party assets which are confirmed as compliant with existing regulatory and legal requirements are eligible for inclusion by the EA.

# 9. Governance

## 9.1 Third-party interventions

Governance of third-party interventions will be via the governance group, as defined in the Wonderful Windermere PC.[4] To the extent that they wish to do so, members of the governance group will be informed and have oversight of certain matters as follows:

(1) **Asset Identification:** Identification and confirmation of assets that are eligible for interventions, subject to meeting the requirements of the Wonderful Windermere PC.

(2) **Asset Assessment:** Review of UUW's assessments of assets shared by UUW with the governance group to determine the suitability of sites for sampling and monitoring, and modelling values, according to the asset type in line with sections 6 and 7. This includes: consideration of potential phosphorus reduction from interventions; review of evidence packs produced by UUW to validate pre- intervention conditions; review of Non-sampling approval forms and asset assessment reports prepared by UUW detailing why certain assets cannot be sampled; and decisions on whether to approve the use of modelled values to report the base load phosphorus emissions and the outcome of interventions at such sites.

a. Consideration of opportunities for match funding and/ or complementary activity that will be developed through the asset assessment report.

(3) **Confirmation of qualifying interventions:** Review of post-intervention evidence provided by UUW with regard to deciding those interventions that should be qualifying interventions.

UUW is solely responsible for the accuracy and veracity of all information presented to the governance group and for complying with the requirements of the Wonderful Windermere PC.

## 9.2 Stakeholder engagement

(a) **Publication of information regarding the Wonderful Windermere PC:** UUW will share the materials developed through its work on the Wonderful Windermere performance commitment to support transparency at a local level with stakeholders whom it is reasonable to consider would have interest in the company's activities relating to this performance commitment. The company should also support the wider sector in the development of similar schemes in the future. Personal data will not be shared.

(b) **Proactive engagement with interested parties:** To foster trust in the scheme, UUW will proactively engage with stakeholders whom it is reasonable to consider have an interest in the company's activities relating to the Wonderful Windermere PC. The processes, interventions, monitoring of interventions and reporting will be transparent and accessible and shared with the interested parties. The company will undertake and keep under review a comprehensive mapping exercise to identify relevant stakeholders throughout the period.

In alignment with points ‘a’ and ‘b’ above, UUW will promote the outcomes of the Wonderful Windermere PC and support the wider sector in the development of similar schemes in the future.

[4]This is currently the Love Windermere partnership website: https://lovewindermere.co.uk/

# 10. Reporting and assurance

## 10.1 Assurance framework

UUW seeks to be transparent about the assurance activities that the company puts in place, to both provide accurate data and also to demonstrate that it is listening to customers and reflecting their feedback in its plans and publications. More information on how UUW reports on its performance can be found here.

UUW's assurance framework can be found here: United Utilities - Assuring our performance 2020-25. This will be updated for the 2025-30 period in line with the latest requirement from Ofwat and will continue to include yearly external assurance.

# Appendix A Technical appendix

## A.1 Reporting Parameters

***Table 7: Reporting parameter definitions***

| Parameters | |
|---|---|
| Outcome reported | Load of total phosphorus prevented from entering the environment as a result of interventions to third-party treatment assets, agricultural and other land uses. |
| Measurement unit and decimal places | kg to 2 decimal places |
| Measurement timing | Calendar year |
| Frequency of reporting | Annual, on calendar year basis. E.g. Performance assessment for 2025-26 based on calendar year 2025. Performance assessment 2029-30 based on calendar year 2029. |

## A.2 Reference Sources

***Table 8: List of reference sources***

| Intervention type | Document | Link |
|---|---|---|
| Farms, Woodlands, Wetlands | Farmscoper Description – Version 5 October 2021 | ADAS document |
| Farms, Woodlands, Wetlands | Farmscoper – Guidance for the assessment of mitigation method implementation | ADAS document |
| Domestic Septic Tanks, Private Sewage treatment works | Viridian Logic Ltd - Windermere Water Quality Management Opportunities November 2022 | Viridian Logic Document |
| General | PR24 Bespoke performance commitments – Wonderful Windermere | Ofwat document |
| General | PR24 WINEP Supporting guidance – permitting of innovative solutions | Environment Agency document |
| General | PR24 WINEP Supporting guidance – polluter pays approach for environmental water quality planning | Environment Agency document |
| General | PR24 WINEP Supporting guidance – polluter pays principle for water quality planning. Implementation Guidance | Environment Agency document |

# Appendix B Example: Non-Sampling Approval Form

## Example: Non-Sampling Approval Form

| | |
|---|---|
| Project Name: | Project No: |
| Date: | Version: |

| | | | |
|---|---|---|---|
| Asset Identification: | | Waterbody catchment: | |

| | | | |
|---|---|---|---|
| Reason for not sampling: | ☐ Availability of a suitable sampling location<br>☐ Spill frequency<br>☐ Confined space access<br>☐ Accessibility to the asset and/or sampling location<br>☐ Other safety concerns (e.g. lifting, exposure to toxic environment)<br>Other Reason:<br>……<br>……<br>…… | Modelled value changes/amendments: | |
| | | Further information and evidence (Pictures, asset plans etc): | |

| Lead | | Date | Signature | Comments |
|---|---|---|---|---|
| Governance Group | | | | |
| Environment Agency | | | | |
| United Utilities | | | | |



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*Figure 3: Example pro forma form for interventions that cannot be sampled*