



PR19 Fair Share principles paper: Outlining the key aspects of the approach

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What's this document about?

This paper outlines the fair share planning approach to be used in PR19 planning. Further technical details will be shared through the Environment Agency modelling network.

Who does this apply to?

E&B Staff involved in PR19 Planning
Ops staff involved in PR19 Planning

Contact for queries and feedback

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Contents

Background.....	2
Fair share approach.....	2
Related documents	5

Background

Background

It has been approved by Defra that we will continue with the current approach, used in PR09 and PR14, of fair share, based on proportionate contribution to the problem for all sectors, which has already been agreed for water quality. Following the submission of PR19 water company business plans in September 2018 the Environment Agency will commence a review looking at the different options for sector contributions that may be considered beyond PR19. Other organisations such as Natural England and sector representatives will be involved in the review. The review will be commenced post September 2018 will limit any uncertainty in that planning and ensure resources are focused on PR19 planning.

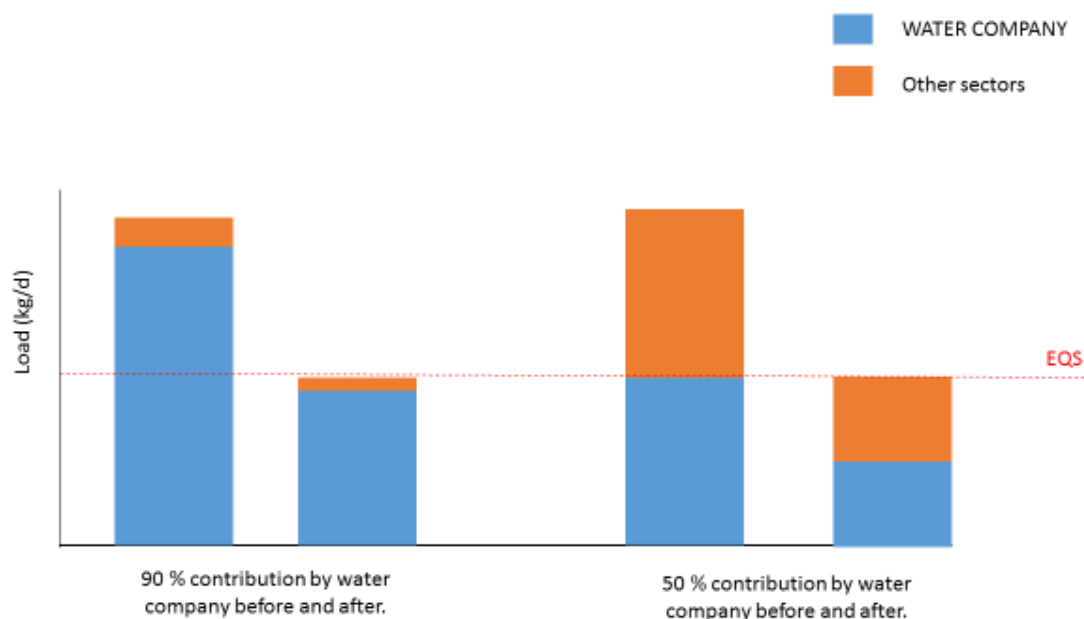
Fair share approach

Targeting action on a fair share basis.

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.

Individual sectors, businesses or individuals are able to do more than their fair share if they are willing to do so and this additional burden is supported, where relevant, by their customers. When a sector cannot achieve its fair share reduction, on grounds of technical infeasibility, we should work with other sectors to identify alternative measures to deal with the problem that are both technically feasible and cost-effective. Any additional obligation imposed on a sector, business or individual, to offset inaction by others, should not compromise its ability to deal with its own fair share.

This 'fair share' approach should be applied when developing programmes of measures for protected areas and catchments.



Fair share approach for water quality

The fair share method below is appropriate for nutrients but we do not anticipate this approach being used for other substances.

Setting the baseline

In PR09 and PR14 action to improve water bodies under the environment programme drivers was on a strict fair share basis based on the polluter pays principle, unless water companies volunteered to go further. It was assumed that other sectors would also do their share to ensure that objectives were achieved. The baseline for fair share must, therefore, be set to 2009 so that there is no further requirement for sectors that have already reduced their pollution load in line with fair share to have to go further. The establishment of new standards i.e. revised Common Standards Monitoring Guidance targets do not reset the baseline. This means that work carried out by any sector already is not ignored. However, over time further action may be required to meet new standards.

Consideration of technical feasibility

Before we will ask other sectors to do more than their fair share there should be documented evidence available to confirm that measures for some sectors are truly not technically feasible. Issues of funding for implementation, or responsibility for implementation are different from issues of technical feasibility. Fair share should be based on technical feasibility and not cost effectiveness or cost benefit. Increasing sectorial contribution as a result of cost effectiveness / benefit passes the cost between sectors. For the water industry this would mean that companies customers would be picking up the additional cost if the water companies did work that it was technically feasible for other sectors to do.

Establishing

The Water Framework Directive is based around a catchment approach to

the scale

planning. A catchment planning approach can, in the right circumstances, do more for the environment following the 'polluter pays' principle. It is envisaged that planning will be done at the operational catchment scale. When undertaking planning we should be aiming to meet protected area objectives whilst maintaining the proportional approach. This should be at the geographical scale of the legally defined protect area. Where protected areas are contained within a catchment (or overlap catchment boundaries) the catchment approach should consider the need to meet these targets. So when planning consider the best solutions for the catchment and protected areas at an early stage, rather than needing to revisit the protected areas at a later stage and therefore require additional work of any sector.

Confirmed approach

Sector shares are determined by their proportion of baseline river concentration at assessment points.

$$\text{sector share (\%)} = \frac{\text{sector concentration}}{\text{total concentration}} * 100$$

Assessment points will depend on the nature of the catchment and will be determined by examination by the interested parties. Assessment points will typically be discharge points, monitoring points, water body entry points and water body exit points. They are selected with a view to maximising compliance, and where there is evidence of eutrophication. Discharge points are the preferred assessment points, but if reasonable, others may be used.

For point sources, their sector share at assessment point is their baseline cumulative (ie sum of all upstream discharge contributions) concentration divided by the baseline river concentration. Our Proportional Catchment Reduction Tool can be used to calculate this from baseline catchment model outputs.

For the diffuse sector it is preferable, for reasons of equity and practicality, to have a single share value. Otherwise some operators will be treated differently, hence unfairly, compared to others. A single diffuse sector share value is calculated from the assessment point values (via a form of averaging) thus:

$$\text{diffuse sector share (\%)} = \frac{\sum \text{diffuse concentration}}{\sum \text{total concentration}} * 100$$

where the summation is over the assessment points.

A similar single catchment share figure may be derived for the point sources. This may be used, as an alternative to the above, for calculating the point source solution, providing the potential for compliance is not compromised. A single share figure may simplify the application of the catchment permitting option (see below).

Here share means the share of the target (EQS) allotted to each sector.

Identifying phosphorus measures for PR19

For WFD pathway to good measures, a sector's fair share should be calculated from water quality models that are calibrated to observed data for the baseline year/period. However the improvement measures should be calculated to ensure that the fair share is not exceeded when assets operate at their full permitted limits.

The SAGIS-Simcat catchment water quality models that have been built and calibrated by the River Basin Management Service (RBMS) in late 2016/early 2017 will provide the basis for identifying WFD phosphorus measures for PR19.

For each SAGIS-Simcat model, the RBMS will create a catchment 'Optimiser' spreadsheet. This is a tool that helps us to rapidly identify an optimum programme of P-stripping across a catchment. It incorporates the confirmed approach to calculating fair share.

It is recommended that the Optimiser tool is used by Area IEP, supported by the RBMS, to identify a catchment programme of phosphorus measures.

Catchment permitting

The catchment permitting approach is still open to water companies during PR19. The Environment Agency position statement on catchment permitting sets out what the Environment Agency expects for developing catchment permitting solutions in terms of company environmental performance, planning, permitting and compliance.

Related documents

Not applicable.