

November 2015

Trust in water

Consultation on the abstraction incentive mechanism

www.ofwat.gov.uk

ofwat

About this document

The abstraction incentive mechanism (AIM) has the objective of encouraging water companies to reduce the environmental impact of abstracting water at environmentally sensitive sites when water is scarce. We plan to implement the AIM in reputational form from **1 April 2016**.

Water companies propose abstraction sites for inclusion in the AIM. No water company wholly or mainly in Wales has proposed an AIM site, and the environmental information we currently have does not suggest there is a need for them to do so. We therefore expect the AIM will only apply to water companies wholly or mainly in England.

We want the AIM to support:

- our vision for the water sector of trust and confidence in water and wastewater services;
- our Water 2020 programme;
- our new resilience duty;
- our water trading incentives;
- the UK Government's planned abstraction reforms;
- the Environment Agency's work to restore sustainable abstraction; and
- companies meeting the Water Framework Directive's objectives.

We set up an AIM taskforce in April 2015 to develop proposals for the AIM. In this consultation, we are seeking views on:

- the taskforce's proposal for how the AIM will work;
- the number of abstraction sites companies are proposing to include in the AIM; and
- our proposals for how companies will report on the AIM.

Contents

1. Introduction	5
2. AIM taskforce	7
3. Abstraction sites proposed for the AIM	12
4. Performance reporting and monitoring	16
5. Next steps	19
6. Future development of the AIM	20
Appendix 1: The AIM taskforce proposal	21
Appendix 2: Reputational incentive calculation method – worked example	30

Responding to this consultation

We welcome your responses to this consultation by **14 January 2016**.

Please submit responses by email to abstraction@ofwat.gsi.gov.uk, or post them to:

AIM consultation
Ofwat
Centre City Tower
7 Hill Street
Birmingham B5 4UA.

If you wish to discuss any aspect of this consultation, please contact Jon Ashley on 0121 644 7710 or by email at jon.ashley@ofwat.gsi.gov.uk.

We will publish responses to this consultation on our website at www.ofwat.gov.uk, unless you indicate that you would like your response to remain unpublished. Information provided in response to this consultation, including personal information, may be published or disclosed in accordance with access to information legislation – primarily the Freedom of Information Act 2000 (FoIA), the Data Protection Act 1998 and the Environmental Information Regulations 2004.

If you would like the information that you provide to be treated as confidential, please be aware that, under the FoIA, there is a statutory ‘Code of Practice’ which deals, among other things, with obligations of confidence. In view of this, it would be helpful if you could explain to us why you regard the information you have provided as confidential. If we receive a request for disclosure of the information we will take full account of your explanation, but we cannot give an assurance that we can maintain confidentiality in all circumstances. An automatic confidentiality disclaimer generated by your IT system will not, of itself, be regarded as binding on Ofwat.

Consultation questions

We are seeking views on the following specific questions relating to the AIM. However, we would welcome thoughts on any aspects of the AIM to inform its future development.

Consultation questions

- Q1** What are your views on the AIM taskforce's proposals? (Chapter 2)
- Q2** How could Filter 3 be defined more precisely, and what assurance is required to make sure any additional filters included in Filter 3 are appropriate? (Chapter 2)
- Q3** What are your views on the number of abstraction sites the water companies are proposing for the AIM? (Chapter 3)
- Q4** What are your views on our proposal that water companies should engage with their customer challenge groups (CCGs) on the abstraction sites they are proposing to include in and reject from the AIM, and their reasons for doing so? (Chapter 3)
- Q5** What are your views on our proposal that water companies should publish their reasons for rejecting abstraction sites from the AIM? (Chapter 3)
- Q6** What are your views on the AIM taskforce's reporting and monitoring proposals? (Chapter 4)
- Q7** What are your views on our additional proposals to increase the transparency of the AIM (that companies should consult with their CCGs and publish information relating to their proposed abstraction sites, trigger points and baselines)? (Chapter 4)
- Q8** What is your view on the use of AIM as a comparator of company performance? (Chapter 4)
- Q9** What are your views on Ofwat publishing companies' AIM outturns on our website? (Chapter 4)
- Q10** What are your views on the future development of the AIM? (Chapter 6)

1. Introduction

The abstraction incentive mechanism (AIM) has the objective of encouraging water companies to reduce the environmental impact of abstracting water at environmentally sensitive sites during defined times of low surface water flows. This will help to improve the resilience of water supply and ensure that it is provided in a more sustainable way.

Water companies propose abstraction sites for inclusion in the AIM. No water company wholly or mainly in Wales has proposed an AIM site, and the environmental information we currently have does not suggest there is a need for them to do so¹. We therefore expect the AIM will only apply to water companies wholly or mainly in England.

The AIM is a regulatory incentive mechanism to complement the existing tools to reduce abstraction from sensitive sources such as abstraction licence changes or licence conditions which require abstractions to cease at times of low flows. The AIM also complements our water trading incentives by discouraging exports from environmentally-sensitive sources not covered by other regulatory processes.

We originally intended for the AIM to be a financial incentive which would start on 1 April 2015 as part of the 2014 price review (PR14) final determinations. In April 2014, we explained that the AIM would no longer be part of PR14 and that we would instead take forward a version of the AIM that was based on reputational incentives to slightly longer timescales in 2015 through a taskforce (see chapter 2). This was because of difficulties with the underlying data and information on the environmentally sensitive sites that AIM is intended to cover. If we had proceeded with the AIM in PR14, there was a risk we could have incentivised companies to reduce abstraction at the wrong times at the wrong abstraction sites or not incentivised them to reduce abstraction when and where it was environmentally appropriate to do so.

¹ The data we have on abstraction sites impacting WFD Band 1, 2 or 3 water bodies does not include any for water companies wholly or mainly in Wales. In addition, no water company wholly or mainly in Wales has currently proposed an AIM site.

We know that reputation is a powerful motivator and can help drive company behaviour. We have seen, for example, the power of regulatory league tables in driving companies to seek to improve their position by changing what they do and how they do it. The reputational AIM seeks to harness a water company's aspiration to enhance its reputation by demonstrating that it is changing its operating practices in a way that benefits the water environment and that helps achieve the objectives of the Water Framework Directive.

Many environmentally damaging abstractions have already been addressed through the Environment Agency's and Natural Resources Wales' Restoring Sustainable Abstraction (RSA) programme. Some of the sources included in the AIM are sites where the RSA programme solution has not yet been implemented or where the environmental impact was not sufficiently large to justify a cost-beneficial scheme under the RSA programme. We would therefore expect the AIM to deliver targeted benefits to the environment where and when it is most needed.

The reputational AIM will contribute to our new resilience duty – for example, by encouraging companies to manage water resources in sustainable ways in response to increasing environmental pressures and population growth.

We are working closely with the Environment Agency to ensure the reputational AIM complements existing Environment Agency programmes to restore sustainable abstraction and enable companies to better meet Water Framework Directive objectives. We are also in contact with Natural Resources Wales to ensure we remain informed about the RSA programme in Wales, and whether the AIM might be suitable for any abstraction sites in Wales in the future. The AIM does not in any way compromise abstraction licences and the conditions they impose on abstractors, such as limits on the volume of water that can be abstracted and limits on when a company can abstract such as hands-off flows. Instead, the AIM seeks to discourage abstraction at environmentally sensitive sites, which is not already prevented by abstraction licence conditions.

We plan to implement the **AIM in reputational form from 1 April 2016**. As we, the water companies and other stakeholders learn from experience the AIM might develop ahead of the 2019 price review (PR19) – for example, the number of abstraction sites covered might increase.

We intend that the reputational AIM will reveal useful information which could inform the UK Government's planned abstraction reforms and the development of a version of the AIM with financial incentives which might form part of PR19.

2. AIM taskforce

In our previous work with stakeholders we identified significant data issues relating to the AIM such as the difficulty in identifying the appropriate threshold for determining when the AIM should apply. In [‘Setting price controls for 2015-20 – decisions on enhanced companies and next steps’](#), which we published in April 2014, we explained that to resolve the data issues with the AIM would require significant effort at a time when we and the water companies were heavily engaged with PR14. If we had proceeded with the AIM at PR14, there was a risk we could have incentivised the wrong changes in abstraction behaviour for the environment. We committed to work with a group of water companies and other stakeholders (the ‘AIM taskforce’) to resolve the data issues in 2015.

Below we summarise the taskforce’s purpose, membership, proposals and how it has addressed the previous data concerns. Further information is available on the [abstraction incentive mechanism taskforce](#) page of our website.

2.1 Purpose of the taskforce

The taskforce was responsible for:

- proposing to us by 1 October 2015 the requirements that all companies would need to meet to report their performance against the AIM during 2015-16 to 2019-20;
- confirming to us the list of environmentally-sensitive AIM sites that each company had agreed with the Environment Agency;
- agreeing solutions to the data issues identified in earlier work on the AIM;
- presenting options on how the reputational incentive should work; and
- providing advice on the development of a financial incentive (the ‘financial AIM’) that we might use with water companies in 2020-25.

The taskforce made its proposal to us at the end of July 2015 and provided data on the abstraction sites in early October 2015.

2.2 Membership of the taskforce

The taskforce comprised representatives of:

- Ofwat;
- the Environment Agency;
- WWF-UK;
- Affinity Water;
- Anglian Water;
- Severn Trent Water;
- South East Water;
- Southern Water;
- South West Water;
- Thames Water;
- Wessex Water; and
- United Utilities.

No representatives of water companies wholly or mainly in Wales or Natural Resources Wales chose to take part in the AIM taskforce. This is because no water company has proposed an AIM site for Wales, and the environmental information we currently have does not suggest there is a need for them to do so.

2.3 The taskforce's proposal

The AIM taskforce's proposal is set out in appendix 1 of this consultation. It is also available on the [AIM taskforce webpage](#) of our website. We have summarised the main elements of the proposal below.

2.3.1 Identification of sources to which the AIM should apply

The AIM taskforce proposes the abstraction sites to which the AIM applies should meet the conditions of the following three filters.

- **Filter 1** – possible AIM sites should be those causing, at times, a potentially unacceptable impact on the environment if operated at licensed or current rates. The AIM could also be appropriate for managing local concerns over the impact of an abstraction on the local environment.
- **Filter 2** – possible AIM sites will probably have an existing alternative source of water or bulk supply readily available to meet the demand that would normally come from the AIM source, or some other realistic means of reducing abstraction from the AIM source.

- **Filter 3** – companies may wish, or need, to apply further filters to the list of AIM sources – for example, excluding sources subject to licences that have already been changed under another process such as the Environment Agency’s RSA programme or to meet Water Framework Directive (WFD) objectives.

For Filter 2, the AIM taskforce proposal says possible AIM sites will ‘probably’ have an existing alternative source of water. For the filter to work, the word ‘probably’ might need to be removed.

Filter 3 allows for the inclusion of further filters. We would welcome respondents’ views on how Filter 3 could be defined more precisely, and on what assurance is required to make sure any additional filters included in Filter 3 are appropriate.

2.3.2 Definition of when the AIM applies

The taskforce proposes that the conditions under which the AIM would apply would be defined individually for each identified AIM source. This will generally be when a river flow or ground water level has fallen below a certain point (a hydrological trigger). Under these conditions, a reduction in abstraction from the source would be, or is likely to be, most environmentally beneficial. The triggers for when the AIM applies should be determined locally for each source depending on the environmental needs. The taskforce has defined the times when the river flow or ground water level is below the trigger point as the AIM period. The AIM period will differ for each abstraction site included in the AIM.

2.3.3 Definition of the AIM baseline

The taskforce proposes that the AIM baseline would be the average daily abstraction during the AIM period that would have taken place from a source if the AIM had not been in place. The company should justify how it has defined the baseline, by reference to the data used, the number and nature of droughts and other events included, and any adjustments made to compensate for changes in the period of record used.

2.3.4 Definition and calculation of the AIM incentive

For the **reputational incentive** the taskforce recommends that the impact of the incentive is measured as the deviation in the actual use of the source relative to the baseline usage. The AIM incentive, or score, should be calculated as the net sum of abstraction from a company's AIM sources during their AIM periods relative to that of the baseline abstraction. If a company abstracts less than the baseline in a particular year, then the score will be positive. If a company abstracts more than the baseline, the score will be negative. A score of zero will be neutral.

2.4 Dealing with previous concerns with AIM data

We delayed the start of the AIM until after PR14 because of data issues. One of the main data problems was that we were considering using data on abstraction sites impacting WFD surface water bodies calculated to be in environmental flow Bands 1, 2 and 3². Water body flow band calculation is complex as it requires assessment of a large amount of abstraction and flow data. It is intended as a flag to direct local environmental investigation. In some cases, local environmental assessment showed that abstraction was not causing an environmental problem. The database also included surface water bodies not appropriate for the AIM – for example, water bodies without a nearby gauging station or real-time data. The taskforce proposes to overcome these data issues by taking a local approach to identifying AIM abstraction sites. Water companies will propose their abstraction sites, after consulting with local stakeholders, such as the local Environment Agency office. Their combined local knowledge of abstraction sites, water bodies and gauging stations should be more up to date and accurate than the database we previously considered using.

² A Band 3 surface water body is where there is a high confidence the flow in that water body is not adequate to support good ecological status. Band 2 bodies reflect moderate confidence and Band 1 bodies reflect low confidence that the flow is not adequate to support good ecological status. The precise definitions of WFD Band 1, 2 and 3 surface water bodies are set out on page 4 of http://www.geostore.com/environmentagency/Abstraction_and_Flow_Technical_Summary_v1_external.pdf

Another data concern was that we were considering using environmental flow indicator (EFI) levels to set the trigger points at which the AIM applied. However, several stakeholders raised a concern that the EFIs were not designed for incentives to be attached to them. The taskforce's proposal is that water companies will propose trigger levels, consulting with local stakeholders to ensure transparency in their approach.

The taskforce's proposal of taking a local approach to identifying AIM sites means the abstraction site selections should be based on better information such as the impact of groundwater abstractions on surface water flows. The local approach also means that water companies will only propose sites for the AIM if historical data exist, and if any step changes in the historical data can be adjusted for appropriately.

Consultation questions

Q1 What are your views on the AIM taskforce's proposals?

Q2 How could Filter 3 be defined more precisely and what assurance is required to make sure any additional filters included in Filter 3 are appropriate?

3. Abstraction sites proposed for the AIM

Table 1 below shows the number of abstraction sites each water company has proposed for the AIM as at November 2015 in column 4.

As context, in column 2 we also show the number of abstraction sites impacting WFD surface water bodies calculated to be in environmental flow Bands 1, 2 and 3 in the Environment Agency's lists, which we circulated to water companies in October 2013. We refer to these as the 'October 2013 lists'. In column 3, we show the number of abstraction sites water companies submitted to us for the AIM in Table W7 of their PR14 business plans.

United Utilities already has four abstraction sites and Wessex Water one covered by mechanisms similar to the AIM in their PR14 final determinations. These result from outcome performance commitments proposed by the water companies following engagement with their stakeholders and review by us. Three water companies – Affinity Water, South East Water and Thames Water – have performance commitments on the AIM in their final determinations that will take effect when the AIM starts. Many water companies are also committed to delivering improvements in their abstraction performance during 2015-20 in line with their PR14 business plans, but not through mechanisms similar to the AIM.

Water companies have told us they refined the number of abstraction sites they proposed for the AIM from the October 2013 lists for several reasons, including the following.

1. The environmental problem is being addressed by another means such as an abstraction licence change.
2. There is an existing operating agreement or hands-off flow condition to address abstraction at low flows.
3. An environmental assessment has been completed and there is no longer an environmental problem or only a small environmental problem.
4. An environmental assessment is pending so it is not yet clear if there is an environmental problem.
5. There are no alternative abstraction sites, or the only alternative abstraction sites are environmentally sensitive or the only alternative abstraction sites impact the same water body.

6. There is no suitable gauging station available, either because there is no gauging station at all, the gauging station is too distant or the gauging station is after two different rivers join together.
7. There is no real-time data available for the abstraction site or the data is unreliable in some way.
8. There are existing river support or augmentation schemes which might mask the impact of abstraction at the site.
9. The groundwater abstraction site's impact on the surface water body is too complex to be addressed by gauging on the surface water body.
10. Changes in abstraction from the groundwater site will be ineffective in addressing short-term low flows in the impacted surface water body.
11. The abstraction site impacts a different water body than the October 2013 list states or the affected water body cannot be identified.

One of our six principles for setting price controls is transparency and predictability³. Transparency in our regulation is very important to build trust and confidence in the water sector. **We therefore propose water companies should engage with their customer challenge groups (CCGs) and publish their reasons for rejecting abstraction sites in the October 2013 lists from inclusion in the AIM.** We think this will improve the legitimacy of the AIM with stakeholders.

³ See pages 41-43 of 'Towards Water 2020 – meeting the challenges for water and wastewater services in England and Wales', July 2015: http://www.ofwat.gov.uk/wp-content/uploads/2015/10/pap_tec201507challenges.pdf

Table 1: The number of abstraction sites proposed for the AIM by company

Column 1 – Company name	Column 2 – Abstraction sites impacting WFD Band 1, 2, 3 sites Ofwat sent to companies in October 2013 from Environment Agency list	Column 3 – Lists of sites submitted as part of business plan (Table W7, AIM) in December 2013	Column 4 – Sites water companies propose for AIM from 1 April 2016 or later (as at October 2015).
Affinity Water	80	62	23
Severn Trent Water	64	7	0
Anglian Water	49	13	2
Southern Water	46	18	4
Thames Water	33	28	5
South East Water	25	4	2
Yorkshire Water	16	2	2
Wessex Water	15	37	1
Sutton and East Surrey Water	14	14	0
South Staffordshire Water	13	2	2
Northumbrian Water	9	2	1
Portsmouth Water	2	2	1
United Utilities	2	4	4
South West Water	0	0	0
Dŵr Cymru	0	0	0
Bristol Water	0	0	0
Dee Valley Water	0	0	0
Bournemouth Water	0	0	0
Total	368	195	47

Consultation questions

Q3 What are your views on the number of abstraction sites the water companies are proposing for the AIM?

Q4 What are your views on our proposal that water companies should engage with their customer challenge groups (CCGs) on the abstraction sites they are proposing to include in and reject from the AIM, and their reasons for doing so?

Q5 What are your views on our proposal that water companies should publish the reasons for rejecting abstraction sites from the AIM?

4. Performance reporting and monitoring

4.1 The taskforce's proposals

The AIM taskforce has proposed that companies will report their performance relative to the defined AIM baseline on an annual basis, and on a cumulative basis, starting in the financial year 2016-17. Companies will report on both individual sources and at company level (that is, for all that company's AIM sources). The AIM taskforce recommends that reporting should be in terms of megalitres (MI)⁴ relative to baseline to give the AIM score. The taskforce suggests the number could be normalised by adjusting the AIM score for baseline average daily abstraction and the length of the in-year AIM period. This would make comparisons between companies easier as otherwise they risk being misleading as a result of some companies having:

- more sites than others;
- more baseline abstraction from AIM sites than others; and
- more time during the year when the AIM applied.

The AIM taskforce proposes that reporting would be through the companies' annual reviews of their Water Resources Management Plans (WRMPs) and the annual reporting process.

The AIM taskforce proposes a local approach to the AIM, with companies proposing their:

- abstraction sites;
- trigger points; and
- baselines.

⁴ A megalitre equals one million litres.

4.2 Our additional proposals to increase the transparency of the AIM

Transparency in our regulation is very important to build trust and confidence in the sector. Stakeholders should be able to trust and understand the basis of companies' reported AIM scores.

Five companies already have AIM or AIM-like performance commitments in their outcomes that they report in the annual performance report each July. **We propose that the other companies with AIM sites report on their AIM performance in the annual performance report.** If the AIM was included in the annual performance report, the quality of the reporting on AIM would contribute to our assessment of companies' reporting and its level of variable assurance.

In relation to the selection of abstraction sites, trigger points and baselines we expect companies to consult with their CCGs, local Environment Agency office and, if appropriate, other local stakeholders on the decisions they make. We think companies should consider adopting the approach to assurance they are using for their performance commitments and outcome delivery incentives which, in addition to discussions with their CCGs about their performance, often include third-party audits of their information.

We also propose that companies should publish their reasons for rejecting the AIM sites in the October 2013 lists, the calculations underlying the AIM baseline for each of their AIM sites and the justification for the trigger points for each AIM site.

To enhance the reputational impact of the AIM, we are considering whether to collate the companies' AIM outturns on our website so that stakeholders can more easily compare companies' performance, while acknowledging the relevance of local environmental differences between companies.

The sector could choose to include the AIM as part of the sector strategic dashboard to further enhance the reputational impact of the incentive mechanism.

We would expect the information companies report on the AIM to contribute to the development of the AIM for PR19 and to the development of companies' business plans for PR19.

Consultation questions

Q6 What are your views on the AIM taskforce's reporting and monitoring proposals?

Q7 What are your views on our additional proposals to increase the transparency of the AIM (that companies should consult with their CCGs and publish information relating to their proposed abstraction sites, trigger points and baselines)?

Q8 What is your view on the use of AIM as a comparator of company performance?

Q9 What are your views on Ofwat publishing companies' AIM outturns on our website?

5. Next steps

We plan the following next steps.

Companies:

- Identify definitive list of AIM sites to be used from 1 April 2016 onwards following consultation with the CCG, the local Environment Agency office and, if appropriate, other local stakeholders (December 2015).
- Establish the baseline level of abstraction for each site following consultation with the CCG, the local Environment Agency office and, if appropriate, other local stakeholders (March 2016).
- Define the trigger for each abstraction site – that is, the point at which the AIM applies – following consultation with the CCG, the local Environment Agency office and, if appropriate, other local stakeholders (March 2016).
- Companies put the AIM into effect (1 April 2016).
- Report on 2016-17 AIM performance as part of annual performance report (July 2017) – if we adopt this approach to reporting the AIM. Otherwise, companies report their 2016-17 AIM performance after 1 April 2017.

Ofwat:

- Review responses to this consultation (December/January 2015).
- Publish guidelines on how the reputational AIM will work (February 2016).
- Publish first assessment of performance (after July 2017).

6. Future development of the AIM

The AIM taskforce has made a proposal about the calculation of a potential financial incentive for the next price control period – that is, from 2020 onwards. The taskforce considered the following three options for setting a future incentive for the AIM.

- The **short run marginal cost** of using an alternative source.
- An assessment of the **environmental value** of abstraction reduction relative to baseline abstraction.
- Customers' **willingness to pay** for abstraction reduction relative to baseline abstraction.

The taskforce did not reach a conclusion on a preferred approach for setting a financial incentive at this stage.

We have an aspiration for the AIM to become financial at PR19 to drive increased benefits for the environment, but we want to learn from the experience of the reputational AIM. Under the timetable for Water 2020 published in '[Towards Water 2020 – meeting the challenges for water and wastewater services in England and Wales](#)', we plan to issue our PR19 methodology consultation in June 2017. This will allow us and stakeholders to draw on one full year of experience with the reputational AIM when proposing options in the consultation and responding to the consultation.

Our Water 2020 publication in December 2015 will provide more information about where markets could make a greater contribution to efficiency, sustainability and resilience in the sector in England. In particular, it will provide more detail on how a water resources market could evolve. We would encourage respondents to this consultation to consider how a financial AIM might interact with a more effective market for water resources when answering the consultation question below about the future development of the AIM.

Consultation question

Q10 What are your views on the future development of the AIM?

Appendix 1: The AIM taskforce proposal

Introduction

The abstraction incentive mechanism (AIM) is a means by which water companies can be incentivised to reduce their abstractions from environmentally sensitive water sources when river flows are low.

AIM is one potential tool that companies have for reducing abstraction from sensitive sources. The other, and more common approach, is for the abstraction licence to be changed. However, this is likely to result in a reduction in the volume of water available to the company and may trigger the requirement for investment in expensive alternative water resources or demand management measures. Licence changes are likely to have been driven by Habitats Directive reviews, RSA or WFD studies. AIM, by contrast, does not involve a change in the licence and therefore does not affect a company's ability to abstract from a source – should that be necessary. The costs are therefore likely to be a lot lower, but by contrast there is no guarantee of a reduction in abstraction at all times, including potentially the most sensitive times. That said, the AIM does provide an incentive to water companies to do what they can, when and where they can, to reduce the risk of environmental damage from abstraction without reducing their right to take as much water as they wish, within their licensed entitlements.

It is important that AIM does not develop into a new round of abstraction impact assessments. This should continue to be driven by the formal processes referred to above. AIM provides an alternative mechanism to licence changes for achieving reductions in actual abstractions. The taskforce considers that this applies equally to the current abstraction licence system and the possible changes being considered under the abstraction reform process.

This proposal has been developed by the Abstraction Incentive Mechanism Taskforce at the request of Ofwat. It is intended to guide Ofwat in setting a reputational incentive for the AMP6 period, and potentially a financial incentive for AMP7. The members of the taskforce are set out below.

The proposal makes recommendations on the following.

- What the objective of the AIM should be.
- To which of a company's sources should it apply.
- The definition of when AIM applies.
- Definition of the AIM baseline – that is, how much the source would be used on average if there were no AIM.
- Definition of the AIM incentive.
- Calculation of a reputational incentive for AMP6.
- Calculation of a potential financial incentive for AMP7.

Objective of AIM

The objective of AIM is to provide an incentive to reduce abstraction from sources that are proven or there is some evidence that they are having, an impact on the environment at certain times. The reduction in abstraction at an AIM source will be achieved by taking more water from other existing sources that have less risk of impact on the environment or by reducing the amount that needs to be abstracted from the AIM source through demand management.

The change in abstraction is not guaranteed. Companies will make regular operational decisions as to whether at any given time it is possible or prudent to reduce abstraction and benefit from the incentive, while helping the environment.

If an environmental issue is such that a guaranteed reduction in abstraction is required, then AIM is not the appropriate approach, at least not in isolation. These changes are managed through the RSA programme and the National Environment Programme, and a number of these schemes have been included in business plans for AMP6.

Given that the abstraction reduction is not guaranteed and it can be expected that water companies would continue to abstract when it is prudent to do so, then there is no impact of the AIM approach on deployable output.

In essence, AIM offers an opex contribution to helping address abstraction issues rather than a capex one, while at the same time offering opportunities for reputational advantage.

Identification of sources to which AIM should apply – the where?

Where possible, AIM should apply to individual sources. Companies may feel that it should apply to groups of sources – in which case justification should be provided.

Filter 1 – Environment

Possible AIM sources should be identified as those causing, at times, a potentially unacceptable impact on the environment if operated at licensed or current rates. EFIs, CAMS or WFD assessments (especially WFD Band 1, 2 and 3 sites) may contribute to defining the possible sources, but in addition to these theoretical ‘mathematical’ assessments ideally there should be some evidence that it is water company abstraction that is causing environmental concern. Exceptionally, AIM may be appropriate for managing local concerns over the impact of an abstraction on the local environment.

Filter 2 – Scope to manage abstraction

An AIM source (or group of sources) will probably have an existing alternative source of water or bulk supply available to meet the demand that would normally come from the AIM source or some other realistic means of reducing abstraction from the AIM source. Thus, where companies have limited surplus resources the opportunity for AIM may be constrained although a company may be prepared to bear additional risk in maintaining operational headroom. During periods of environmental stress, companies should consider opportunities to switch abstraction between sources, and to reduce waste, leakage and demand to enable reduced abstraction in general. Proactive customer engagement and co-ordinated campaigns with local environmental groups present opportunities to reduce demand and thereby help manage demand and therefore abstractions.

Filter 3 – Further refinement

Companies may wish to/need to apply a further filter to the list of AIM sources. These would be company-specific reasons but could include, for example:

- the need to avoid two AIM sources competing for the same donor water at the same time;
- sources that are already changed under the RSA programme;
- water quality constraints (for example, no deterioration for metaldehyde) or wider customer acceptability issues (for example, hard/soft water changes); and
- insufficient appropriate data available.

As a consequence of applying these filters, it is possible that a company may conclude that it has no sites that are suitable for application of the AIM.

For PR14, Ofwat asked companies to report information on their WFD Band 1, 2 and 3 sites in their business plans. Following the application of the above filters, Ofwat will want to understand which of a company's WFD sites are considered appropriate for AIM, and if not, an explanation of why they did not pass through the filters.

If possible, companies should also identify which sites are likely to pass through Filter 3 if the data available were improved.

Example – Wessex Water

The Mere source was selected for AIM despite a detailed low flow investigation showing no significant impact of abstraction on river ecology. However, Wessex Water adopted an AIM approach given local concerns and the uncertainties inherent in hydro-ecological studies.

Definition of when AIM applies – the when?

The conditions under which the AIM would apply – the AIM period – need to be defined for each identified AIM source. This will generally be through a hydrological trigger when a reduction in abstraction from the source would be, or is likely to be, environmentally beneficial. Typically this will be a river flow condition, but equally it might be a groundwater level condition, drought trigger or other appropriate measure. In any year the period over which the AIM applies will vary depending on the weather, and will differ from source to source depending on the nature of the source and its interaction with the environment. The triggers for the AIM period should be determined locally for each source depending on the environmental needs.

Example – Affinity Water example

Affinity Water supports ice-age flatworms in Ashwell Springs by recharge from a nearby source once flow in the stream leaving the spring falls below a minimum flow.

Example – Wessex Water

At the Mere source, Wessex Water has used a groundwater level as the trigger for the AIM period. This condition equates to approximately Q40. The trigger relates both to the hydrology/hydrogeology of the area – that is, when springs stop flowing, and the flows at which local people get concerned.

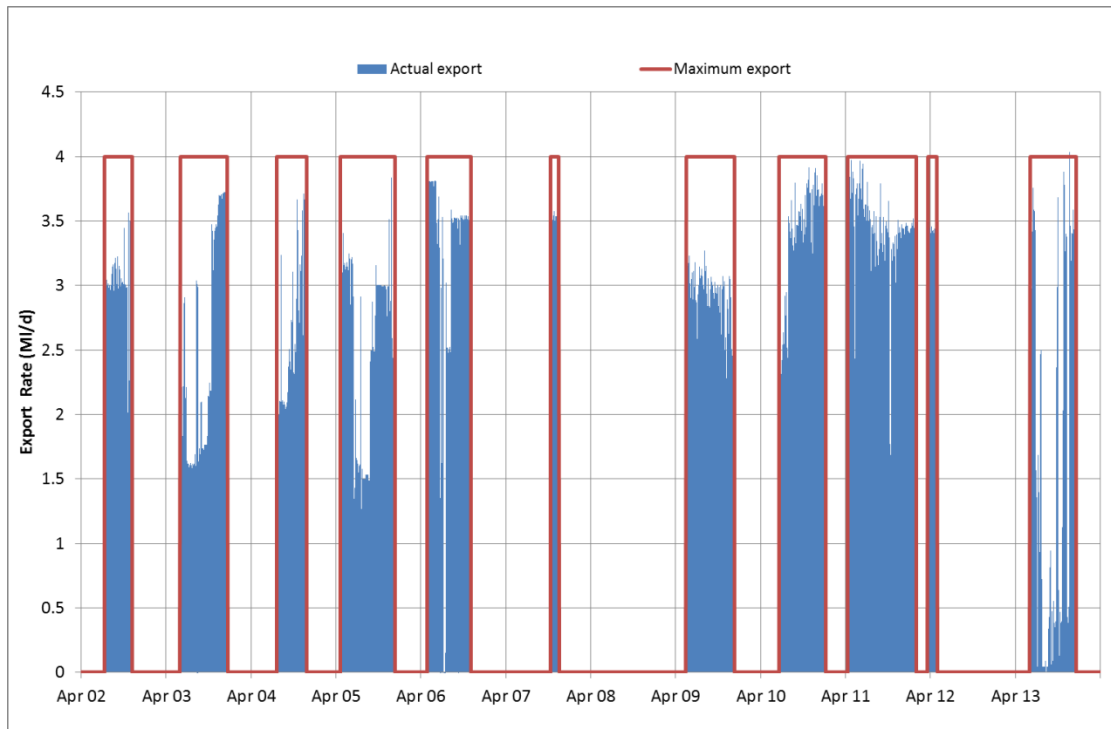
Definition of the AIM baseline

The AIM baseline is the average daily abstraction **during the AIM period** that would have taken place from a source if the AIM had not been in place. The baseline average needs to be considered over a range of hydrological and demand conditions. Taking the average of the previous six to ten years is one possible approach, but the key consideration is that the period of record selected should be representative of future conditions. For some sources the future may not be the same as the past – for example, where sources have been subject to sustainability reductions, changes in demand or water quality, or where investment in the assets has caused substantial changes in abstraction. The company should justify how the baseline has been defined, by reference to the data used, to the number and nature of drought and other events included and to any adjustments made to compensate for changes in the record used.

Example – Wessex Water

The Mere baseline was determined from the ten years of abstraction prior to the adoption of a trial AIM in 2014. In some years the contribution to the baseline was 0 MI because the AIM trigger never took effect (for example, 2008-09), whereas in other years the AIM period lasted most of the year (for example, 2011-12). The baseline value is the average daily export rate during the AIM period over the ten years, which was around 2.5 MI/d. This is illustrated in the graph below.

Figure 1: Defining the AIM period and baseline – exports from the Mere source when the AIM trigger had been switched on



Definition and calculation of the AIM incentive

For a **reputational incentive**, it is recommended that the impact of the incentive is measured as the deviation in the actual use of the source relative to the baseline usage. The AIM incentive, or score, would be calculated as the net sum of abstraction from a company’s AIM sources during the AIM periods relative to that of the baseline abstraction. If a company abstracts less than the baseline in a particular year then the score will be positive, if a company abstracts more than the baseline the score will be negative. A score of zero will be neutral. A worked example is given in appendix 2.

To help with interpretation of the AIM scores companies should make available the calculations underlying their AIM scores so that changes at each abstraction site can be seen. Companies should also provide information on how many AIM sites they have, the size of the AIM baseline in Ml/day and particular pressures they face to help stakeholders understand their performance.

Companies with no sources suitable for AIM should be clearly segregated from those with AIM sites in any regulatory reporting requirements.

For a **financial incentive**, the AIM score would be multiplied by a unit (per MI above or below the AIM baseline) reward/penalty rate. Three options have been discussed for setting this rate.

- Short run marginal cost to use an alternative source, or a multiple thereof.
- Assessment of the environmental value of abstraction reduction relative to baseline abstraction.
- Customer willingness to pay for abstraction reduction relative to baseline abstraction.

Short run marginal cost

The AIM incentive unit rate could be based for each source on the difference in operating cost between the AIM source and the cost of alternative sources. These costs will generally reflect marginal operating costs but may include other periodic cost differences.

A multiple of the difference in operating costs (for example, 1.2) could be used to provide an incentive beyond cost recovery. Alternatively, a multiplier of less than 1.0 could be used to part-fund the additional financial cost.

Environmental valuation

The incentive would be calculated based on an assessment of the value of the environmental gains delivered by the revised abstraction policy.

Willingness to pay

The incentive would be calculated based on customers' willingness to pay for a change in the abstraction regime at the AIM source.

The design of the incentive rate and how it is applied will require considerable thought and detailed analysis, in order to avoid introducing any perverse incentives. Which of the three methods is used for setting a financial incentive should be a matter of further consultation, and could be decided upon locally. If the AIM is to be a single industry-wide incentive then the financial incentive might be set nationally.

However, during AMP6 consideration should be given to the scale of the required AIM incentive required for each source compared with the environmental issue identified and a view reached as to whether the environmental benefits arising from the implementation of the AIM justify the additional costs that AIM will bring. If the benefits do not justify the costs then the AIM should not be applied.

For the Mere example, Wessex Water uses £50/MI as an incentive. This was based on a figure that Ofwat had been thinking about using. Coincidentally it is about the marginal cost difference between the AIM source (Mere) and the alternatives.

Information that companies need to prepare:

In companies' assurance processes they will need to include the following information for the reputational AIM.

- A list of potential AIM sources and the justification of their filtering.
- For each source a definition of the AIM period (that is, the trigger for AIM to apply).
- For each source, the baseline average output during the AIM period.

There is an expectation that companies will consult the Environment Agency on their plans for AIM, although the Environment Agency is not responsible for approving companies' AIM plans. For some companies it is possible that when they work through the process of defining potential AIM sites there may not be a requirement to implement AIM.

For a financial AIM in addition companies would need to confirm an AIM incentive rate using one of the methods described above.

Reporting

As a reputational incentive companies will report their performance relative to the defined baseline on an annual basis, and on a cumulative basis – starting in 2016-17. The report will be for both individual sources and at company level (that is, for all AIM sources). For the reputational incentive, reporting should be in terms of MI relative to baseline – that is, the AIM score. Optionally this could be normalised (see appendix 2).

Reporting would be both in the companies' annual reporting process and the annual review of the WRMP.

Timescales

A possible timescale is outlined below.

Date	Action
21 July	This note to be finalised by the taskforce by 21 July and forwarded to Ofwat. At the same time copied for information to the Water UK Water Resources Network.
August	Companies requested via Water UK Water Resources Network to review sources that may have a continuing effect on the environment and that they consider could be appropriate for inclusion under the AIM and share this with the Taskforce, without being prejudicial to their final position.
Early autumn	Ofwat to consult on the proposals.
Before Christmas	Ofwat guidance or letter.
January 2016	AIM taskforce meeting to discuss progress on AIM site identification.
January to March 2016	Companies formally determine AIM sites and required information.
1 April 2016	Earliest date for a reputational incentive to start.
Annually thereafter	Performance relative to baseline reported.

Members of the AIM taskforce

Chris Lambert	Thames Water
Mike Pocock	Affinity Water
Lee Dance	South East Water
Colin Fenn	representing WWF
Carolyn Cooksey	Anglian Water
Richard Blackwell	United Utilities
Marcus O'Kane	Severn Trent Water
Nigel Hepworth	Southern Water
Glenis Pewsey	South West Water
Luke de Vial	Wessex Water
Owen Turpin	Environment Agency
Jon Ashley	Ofwat

Appendix 2: Reputational incentive calculation method – worked example

AIM trigger defined as when flow in River Diddle as measured at Slow Water gauging station is less than 10 MI/d.

Review of historic abstraction from source shows average abstraction during the AIM period (that is, when flows are less than 10 MI/d in the river) is 5 MI/d.

In 2016-17, the company abstracts an average of 4 MI/d from the source during the AIM period which lasts 100 days in that year. Therefore, it has outperformed the AIM incentive by 100 MI – a score of +100 MI.

In 2017-18, the company abstracts an average of 6 MI/d from the source during the AIM period which in this year only lasts 50 days. Therefore, it has under-performed the AIM incentive by 50 MI – a score of -50MI.

The cumulative AIM score for the two years 2016-17 and 2017-18 would be +50MI.

In general: AIM score = (Baseline average daily abstraction during AIM periods – In year average daily abstraction during AIM period) * length of in year AIM period

Normalisation

To allow comparisons it may be appropriate to normalise AIM scores as follows.

Normalised AIM score = AIM score / (Baseline average daily abstraction * length of in year AIM period)

Ofwat (The Water Services Regulation Authority) is a non-ministerial government department. We regulate the water sector in England and Wales. Our vision is to be a trusted and respected regulator, working at the leading edge, challenging ourselves and others to build trust and confidence in water.

Ofwat
Centre City Tower
7 Hill Street
Birmingham B5 4UA

Phone: 0121 644 7500
Fax: 0121 644 7533
Website: www.ofwat.gov.uk
Email: mailbox@ofwat.gsi.gov.uk

Printed on 75% minimum de-inked post-consumer waste paper.
November 2015

ISBN 978-1-910739-23-5

© Crown copyright 2015

This publication is licensed under the terms of the Open Government Licence v3.0 except where otherwise stated. To view this licence, visit nationalarchives.gov.uk/doc/open-government-licence/version/3 or write to the Information Policy Team, The National Archives, Kew, London TW9 4DU, or email psi@nationalarchives.gsi.gov.uk.

Where we have identified any third party copyright information, you will need to obtain permission from the copyright holders concerned.

This document is also available from our website at www.ofwat.gov.uk.

Any enquiries regarding this publication should be sent to us at mailbox@ofwat.gsi.gov.uk.

