
south east water

WINEP ODIs

South East Water

July

South East Water
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Pure know_how

1. Introduction

The process for seeking amendments to ODIs is set out in Annex 2 of our PR19 Outcomes Performance commitment appendix. We met with Ofwat on 21st June to discuss this ODI and why it should be amended, and this document is the outcome of that meeting. Annex 2 sets out three reasons why an ODI might be amended. The annex sets out three possible reasons for amendments: unambiguous errors; changes to third party materials or improvements in the customers interest. This application is based on the third of these options: improvements made in the customers’ interests.

At the time of FD19 we were committed to the delivery of 43 WINEP schemes in year 2 and early started schemes to ensure statutory deadlines would be met.

For six of these schemes the statutory deadlines have changed in agreement with the Environment Agency and Natural England. It is therefore appropriate that these new deadlines are recognised in the WINEP ODI for 2021/22 and for future years as shown below.

	2020/21	2021/22	2022/23	2023/24	2024/25
Final Determination	0	43	43	44	60
Revised programme agreed with EA&NE	0	37	38	39	65
Performance to date	9	38			

The changes to these deadlines is, for reasons explained below, the right thing to do for both the environment and our customers. The revised deadlines do not save any money for our company and in 2021/22 we have actually delivered one scheme earlier than originally planned

Our customers and the environment will actually receive more benefit than could have been reasonably expected at the FD, as a result of these changes, and therefore it is inappropriate for a penalty to be applied for this ODI.

We are also concerned that implementing a penalty, even when changes are agreed with the EA, would encourage companies to submit plans that include high levels of contingency and long delivery dates – this would not be beneficial to customers or the environment.

2. SEW WINEP ODI

We have a bespoke penalty only ODI for WINEP, which was intended to ensure that we met our statutory deadlines as agreed with the Environment Agency and Natural England. The targets for AMP7 in our final determination are as follows:

Performance commitment levels

		Company forecast	Committed performance level				
	Unit	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
Performance commitment level	Number	NA	0	43	43	44	60
Enhanced underperformance collar	Number		NA	NA	NA	NA	NA
Standard underperformance collar	Number		NA	NA	NA	NA	NA
Underperformance deadband	Number		NA	NA	NA	NA	NA
Outperformance deadband	Number		NA	NA	NA	NA	NA
Standard outperformance cap	Number		NA	NA	NA	NA	NA
Enhanced outperformance cap	Number		NA	NA	NA	NA	NA

So far in AMP7 we have delivered 9 schemes by the end of 2020/21 and 38 schemes by the end of 2021/22 (one scheme has been delivered two years early). We now have 65 green schemes rather than the 60 envisaged when this ODI was finalised, and expect to deliver them all by the end of the AMP. We are in no doubt that the environment and our customers will receive over-delivery during AMP7, compared to what was funded at PR19, and we are proud of our environmental record as a company.

A number of complex abstraction investigation schemes were started early to ensure that statutory deadlines were met (commenced two years early). The complexity of these abstraction investigations and lack of field data has meant that further scientific data is needed to understand whether water abstraction is the reason for ‘environmental failure/deterioration’ or some other factor. Scientific data such as water quality, flow monitoring and baseline ecological data helps to build a picture of the health of the environment. We need this data to understand what is driving impacts to the catchments, if we do not do this then under Water Framework Directive modelling it is assumed that the failure is a result of unsustainable abstraction.

It is our experience that once data has been gathered and analysed that we are able to provide a more accurate picture of what is driving environmental impacts in rivers and we can use this data to apportion impact from different areas for example highways drainage, nutrient enrichment, urbanisation of the

catchment etc. It is then possible to model whether cessation of an abstraction source will benefit or further impact a water body. It is important that this work is done to ensure that investments are not only good value for customers but that they drive environmental improvements too.

Evidence to support the case for deadline changes has been discussed and submitted to the Environment Agency and Natural England. Extensions to statutory deadlines have been agreed for all six schemes.

For this reason, and in line with the ODI definition our target for our WINEP ODI in 21/22 should be amended to 37, with further amendments being made across the rest of the programme due to reflect amended statutory deadlines.

The changes to these deadlines is the right thing to do for both the environment and our customers.

The revised deadlines do not save any money for our company. The obligations still remain, but the requirement to collate additional data and information will require extra time and expense as described in section 4.

3. ODI definition

The ODI clearly states that the targets can change (we have added the underlining in the quote below)

The company will measure its performance by ensuring that all elements of its 2020-25 period WINEP obligations are delivered to agreed scopes and to final statutory deadlines.

The full list of included schemes is provided in

<https://www.ofwat.gov.uk/publication/pr19-winep-programme-annual-update-for-2019/>

The company will report annually on its progress of each work package and whether it has been delivered to agreed scopes and final statutory deadlines. The view of the Environment Agency on the progress will be definitive.

This makes it clear that delivery should be measured against ‘agreed scopes and final statutory deadlines’. In our case this means that delivery should be measured against the 37 schemes with final statutory deadlines for March 2022, not the 43 schemes which were forecast to have such deadlines in 2019.

4. Detail of the Schemes

It is important to understand the nature of the six schemes which have had altered delivery dates, and the reasons for those delays. In all cases the changes to the delivery dates are in the interests of both customers and the environment. The descriptions below are summaries and necessarily include simplifications. If more detail is required on some or all of the schemes, we can provide it.

Schemes 1, 2 and 3 – studies affecting the River Itchen

7SE200027 - Investigation to determine the costs, impacts and technical feasibility of reaching or maintaining revised CSMG flow targets for the River Itchen SAC. Suggest this is a joint investigation with Southern Water and Portsmouth Water.

7SE100064 - LASHAM Pumping Station HD in combination investigation

7SE110007 - North Wey at Alton

These schemes have been grouped together because they are investigations of hydrologically linked sites, and it does not make sense to look at them in isolation. There are two major causes of the amendment to the deadlines for these schemes. The first is that data that was expected to be available from the EA and Natural England has not been available, and we have needed to generate that data at our own cost. The second cause is that the scope of the scheme has increased as described below. The schemes are essentially about investigating the reduction or cessation of pumping at a series of hydrologically linked borehole sites, in order to allow increased water to flow into the River Itchen, and particularly its headwaters. As investigations have commenced a number of concerns have arisen.

The EA requested that we make an early start with monitoring groundwater levels in the Candover catchment (The Candover is a tributary of the Itchen). The EA suggested at this point they had sufficient flow and ecology data to inform the investigation. Groundwater level monitoring began in 2018. However, further analysis and early investigation indicated that there was insufficient spot flow data held by the EA for the Candover Stream to inform the groundwater model, conceptualisation and also the impact assessment. Spot flow monitoring was undertaken. Also a lack of Winterbourne macro-invertebrate sampling was available, to inform the investigation, so this monitoring was also picked up.

An appropriate assessment was required for the scheme. The definition of an appropriate assessment is such that it must contain *complete, precise and definitive findings and conclusions* to ensure that there is *no reasonable scientific doubt* as to the effects of the abstraction (on the designated features). This is complex for an abstraction that has been operating for nearly 100 years and was operational before the site designation; there is a need to understand the impacts of abstraction and also a need to understand what the impact would be if we had to reduce or cease abstraction on the designated features. A change in abstraction could have a negative impact (e.g. flooding of designated areas) rather than a positive. If the wrong option is taken forwards, there will also be a requirement for

customer funded investment in an alternative water source, as well as the social and financial costs for resolving any impacts of flooding, or on designated sites.

The following four areas were the main scope increases:

Ephemeral Winterbourne

A winterbourne is a stream that runs dry in summer. The ephemeral winterbourne, the headwaters of the Candover stream are considered by Natural England to be an integral part and essential to supporting the ecological integrity of the SSSI and SAC. Following consultation with Natural England and the Environment Agency, the ephemeral winterbourne reaches were scoped into the Appropriate Assessment. Through the investigation, it became apparent that there was a lack of winterbourne macro-invertebrate data collected by the EA to inform whether there are any impacts to the winterbourne sections and additional data collection was required to inform the appropriate assessment.

Southern Damselfly

Southern damselfly are classified as endangered and are a primary reason for River Itchen SAC and SSSI designation. Environment Agency macro-invertebrate records show that southern damselflies are now present within the Candover catchment, only recorded at one site in the catchment and only recorded once (very limited data). Due to a significant lack of data held by EA/NE there is a lot of uncertainty around any impacts to this species – we have had to undertake surveys to understand the spatial distribution and this is part of the reason for the extension – to allow us to collect this information to inform the Appropriate Assessment.

Water Quality

Through a separate WQ WINEP investigation scheme, completed in March 2022, we identified a rising trend of nitrates in the groundwater at this site. These abstraction boreholes are deep and there is a significant amount of unsaturated chalk which holds nitrates (nutrients) and a rise in groundwater levels have the potential to remobilise nitrate held within the unsaturated chalk pores, and issue at spring source feeding the Candover stream. We need to understand the water quality risk to the surface water and designated features – if the abstraction changes. This is being picked up in the revised scope of works and included in the extension.

Flood Risk

We also need to understand the flood risk with any changes to abstraction, Lasham has been shown to impact on flows in the Upper Wey, Alton. However, the Upper Wey is a heavily modified water body and the town has developed over many years around the watercourse. There is a potential flood risk to properties if there is a cessation of abstraction, which needs to be understood. This is being picked up in the revised scope of works and included in the extension.

The following table shows why the increased scope required a delay to completion in order to collect the appropriate data

Data Required	Reason	Duration of collection	Why data is required
Spot flow data	lack of flow data held by the EA for the Candover with the EA only having on gauging station on the lower reach of the stream	Full duration (min 2 years – but fully dependent upon weather during the monitoring period)	Data needed for full duration of project to inform conceptualisation, modelling and impact assessment. Ideally we need a long dataset to provide information under different climates to assess any impacts
Groundwater levels	to provide spatial information on groundwater levels across the Candover catchment	Full duration (min 2 years – but fully dependent upon weather during the monitoring period)	Data needed for full duration of project to inform conceptualisation, modelling and impact assessment. There is a lack of detailed groundwater monitoring in the Candover catchment and the EA requested that groundwater level monitoring was put in early (before the start of the project).
Macro-invertebrate data	lack of data, particularly in the winterbourne sections (headwaters) of the Candover Stream	Full duration	Surveys carried out spring, summer and autumn – due to the lack of data in the winterbourne sections monitoring is required. Needed to reduce uncertainty in Appropriate Assessment.
Water quality data	Required to be taken at the Macro-invertebrate survey sites to inform, through analysis, whether any of the scores are impacted by flow or by water quality. Additional sites across the catchment to inform of any pollution incidents	Full duration	Monthly samples at locations
Southern Damselfly surveys	lack of data held by EA/NE on the designated species across the Candover catchment – surveys have had to be picked up using a specialist from the wildlife trust	Survey window short (July) and can only be done once a year	Needed to reduce uncertainty in Appropriate Assessment

We estimate that the early start (before 2020) covering groundwater monitoring installation within Candover catchment (equipment, staff downloads) cost between £35-40k, in addition to the original budget.

For the additional monitoring work, we are still agreeing the final definition of the scope of work with Natural England and the Environment Agency, but we estimate that the cost will be between £200-300k

Furthermore, if we had rigidly stuck to the original deadline, it is likely that we would have produced a case for significant investment to be funded at PR24, which would have placed a future cost for customers. It is still possible that such investment will be necessary, but this should only be carried out when all alternative options, including natural capital options, have been exhausted.

Schemes 4 & 5 – 7SE100041 - North Kent Model - Swale Chalk and 7SE100042 - North Kent Model - Medway chalk

These two schemes are joint projects with Southern Water. This is an innovative scheme, which is intended to model the behaviour of water in two linked Chalk aquifers, Medway and Sale. Linking geology with water dependent habitats is a first, and this scheme has the potential to drive nature based solutions in future. It has emerged that significant data collection is needed to ensure the model operates correctly. It is the nature of innovative projects that sometimes they cannot be carried out in the manner originally envisaged. The revised scope of this project will cost us more, not less money, as we will now need to collect the additional data shown in the table below

The intention of the project is to demonstrate the level of sustainable abstraction in this area by understanding whether water flows to rivers or out to sea. It is important to establish whether or not investment is required in this area.

The additional requirements include data to understand any impacts to GWDTE (GroundWater Dependent Terrestrial Ecosystems), as well as impacts to WFD (Water Framework Directive) status of waterbodies. Observational Boreholes and piezometers needed to be drilled with the North Kent Marshes and GWDTE to inform the model build, conceptualisation and inform the investigation. It is essential for both water companies to use the models to operate sources sustainability across the chalk aquifers.

The following table shows what additional data was required, why additional time was needed to collect it, and why the data is necessary.

Data required	Reason	Duration of collection	Why data is required
Eco-hydrology data	To investigate any impacts of abstraction on eco-hydrology, WFD waterbody status and GWDTE. There are a number of designated sites that require monitoring to understand any impacts.	Full duration (min 2 years – but fully dependent upon weather during the monitoring period. Ideally much longer)	To understand any abstraction impacts to eco-hydrology, WFD waterbody status and GWDTE.

Spot flow data	lack of flow data held by the EA for flows in WFD surface water bodies	Full duration (min 2 years – but fully dependent upon weather during the monitoring period)	Data needed for full duration of project to inform conceptualisation, modelling and impact assessment. Ideally we need a long dataset to provide information under different climates to assess any impacts. There is uncertainty in the water balance for this scheme/catchment and further work required.
Spring flow data	lack of spring flow data held by the EA	Full duration (min 2 years – but fully dependent upon weather during the monitoring period)	Data needed for full duration of project to inform conceptualisation, modelling and impact assessment. Ideally we need a long dataset to provide information under different climates to assess any impacts. There is uncertainty in the water balance for this scheme/catchment and further work required.
Groundwater levels	to provide spatial information on groundwater levels across the North Kent catchment	Full duration (min 2 years – but fully dependent upon weather during the monitoring period)	Data needed for full duration of project to inform conceptualisation, modelling and impact assessment. Good spatial groundwater level data required – we have had to drill OBH to obtain good coverage of key areas.
Macro-invertebrate data	lack of data in surface water bodies held by EA	Full duration	Surveys carried out spring, summer and autumn.
Water quality data	Required to be taken at the macro-invertebrate survey sites to inform, through analysis, whether any of the scores are impacted by flow or by water quality. Additional sites across the catchment to inform of any pollution incidents	Full duration	Monthly samples at locations

If the project had been rushed to completion, the result could have been costly investment to develop new sources of water which might prove not to be necessary, once the model has been fully developed. If Ofwat determine that no adjustment to the ODI should be made we are concerned that this would discourage companies from proposing innovative schemes in the future in order to avoid this kind of risk.

Scheme 6 – (7SE100044) - Crowhurst, Turzes Farm and Stonegate

This is a scheme where we need to stop pumping from a borehole in order to assess the effect on river flows, and investigate whether or not the pumping is sustainable. It was not possible to stop pumping from this location because of the extra demand on the network which resulted from Covid 19. The water serves a residential area, where demand was significantly elevated due to working from home. If we had reduced pumping as planned, it would have had an impact on service to customers. The scheme is now scheduled for 22/23.

5. Conclusion

We are requesting that Ofwat recognises that the deadlines for these six schemes have changed. They have changed for legitimate reasons that are in the best interest of customers and the environment. It would be counter productive for us to be penalised for these changes which have been agreed with the Environment Agency.

We request that in its draft determination of in period ODIs, Ofwat should amend our target on ODI PR19SEW_H.3 to 37 for 2021/22; Our actual performance for 2021/22 was 38, and this is a penalty only ODI, so this amendment would result in neither a penalty nor a reward.

It would also be helpful if Ofwat could clarify that the targets for this ODI for future years will be amended to 38 for 2022/23; 39 for 2023/24 and 65 for 2024/25 as detailed in the table at the top of this document.

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