

Affinity Water: PR24 Business Plan Submission - Commentary

RES1: Water resources asset data

RES1.1: Water from impounding reservoirs

For 2022-23 we are reporting 2.11 MI/d as per APR. For 2023 – 2025 we are forecasting this volume to reduce to 1.92 MI/d by 2024-25. For 2025 – 2030 we are forecasting that the volume will continue to decrease over the period to 1.62 MI/d by 2029-30.

Changes from PR19 forecast – These lines were forecast to be 0.00 MI/d as this water is for emergency use only, but we have consistently used water from these two reservoirs over the past three years due to raw water quality issues.

RES1.2: Water from pumped storage reservoirs

For 2022-23 we are reporting 24.28 MI/d as per APR. For 2023 – 2025 we are forecasting this volume to increase to 24.77 MI/d in 2023-24 and 23.91 MI/d in 2024-25. For 2025 – 2030 we are forecasting that the volume will decrease over the period to 20.69 MI/d by 2029-30.

Changes from PR19 forecast – This is significantly higher than the 4.8 MI/d forecast as we have changed our reporting for Chertsey from a River Abstraction to a Pumped Storage Reservoir in 2020 – 2025 which accounts for the 17 MI/d increase.

RES1.3: Water from river abstractions

For 2022-23 we are reporting 298.54 MI/d as reported in the APR. For 2023 – 2025 we are forecasting this volume to increase to 300.48 MI/d in 2024-25. For 2025 – 2030 we are forecasting that the volume will continue to decrease over the period to 285.82 MI/d by 2029-30.

Changes from PR19 forecast – This is lower than the PR19 forecast as we have changed our reporting for Chertsey from a River Abstraction to a Pumped Storage Reservoir in 2020 – 2025 which accounts for the reduction in volume.

RES1.4: Water from groundwater works, excluding managed aquifer recharge (MAR) water supply schemes

For 2022-23 we are reporting 603.52 MI/d as reported in the APR. For 2023 – 2025 we are forecasting this volume to decrease to 526.66 MI/d in 2024-25 in line with our forecasted reduction in Distribution Input over this period. For 2025 – 2030 we are forecasting that the volume will reduce by 35 MI/d in 2025-26 to 491.55 MI/d, as our Sundon Treatment works will increase the volume we import from Grafham by 30 MI/d allowing us to reduce our reliance on groundwater sources. We are then expecting this volume to continue to reduce throughout the period where we are forecasting 469.75 MI/d in 2029-30.

Changes from PR19 forecast – This is higher than our PR19 forecast as we have not seen the reduction in overall Distribution Input as originally thought which was expected to come mainly from our groundwater sources abstracting less water.

RES1.5: Water from artificial recharge (AR) water supply schemes

For 2022-23 we are reporting 0.00 MI/d as per APR. For 2023 – 2025 and 2025 – 2030 we are forecasting that this proportion will remain as 0.00 MI/d as we do not have any plans to introduce any artificial recharge (AR) water supply schemes

Changes from PR19 forecast – This has not changed since our PR19 forecast as we do not have any artificial recharge (AR) water supply schemes.

RES1.6: Water from aquifer storage and recovery (ASR) water supply schemes

For 2022-23 we are reporting 0.00 MI/d as per APR. For 2023 – 2025 and 2025 – 2030 we are forecasting that this proportion will remain as 0.00 MI/d as we do not have any plans to introduce any aquifer storage and recovery (ASR) water supply schemes

Changes from PR19 forecast – This has not changed since our PR19 forecast as we do not have any aquifer storage and recovery (ASR) water supply schemes.

RES1.7: Water from saline abstractions

For 2022-23 we are reporting 0.00 MI/d as per APR. For 2023 – 2025 and 2025 – 2030 we are forecasting that this proportion will remain as 0.00 MI/d as we do not have any plans to introduce any saline abstractions

Changes from PR19 forecast – This has not changed since our PR19 forecast as we do not have any saline abstractions.

RES1.8: Water from water reuse schemes

For 2022-23 we are reporting 0.00 MI/d as per APR. For 2023 – 2025 and 2025 – 2030 we are forecasting that this proportion will remain as 0.00 MI/d as we do not have any plans to introduce any water reuse schemes

Changes from PR19 forecast – This has not changed since our PR19 forecast as we do not have any water reuse schemes.

RES1.9: Number of impounding reservoir sources

No changes are proposed which affect the number of impounding reservoirs over 2023 – 2025 and all of 2025 – 2030, so figures remain consistent with 2022-23 actual figures.

Changes from PR19 forecast – Heron Lake and Queensmead Lake were excluded previously as they are not used under normal operating conditions, only in emergency circumstances. However, looking at historical data these sources are used within the year, so they have now been included in forecast data.

RES1.10: Number of pumped storage reservoir sources

No changes are proposed which affect the number of pumped storage reservoirs over 2023 – 2025 and all of 2025 – 2030, so figures remain consistent with 2022-23 actual figures.

Changes from PR19 forecast – Only Ardleigh included previously but Chertsey has also now been reclassified here as it also abstracts water from a river which is then pumped into a raw water storage reservoir before entering the treatment works on site.

RES1.11: Number of river abstraction sources

No changes are proposed which affect the number of river abstractions over 2023 – 2025 and all of 2025 – 2030, so figures remain consistent with 2022-23 actual figures.

Changes from PR19 forecast – Chertsey included previously but reclassified as pumped storage so has now been removed.

RES1.12: Number of groundwater works excluding managed aquifer recharge (MAR) water supply schemes

Although this line remains unchanged from the 2022-23 actual until 2027-28, it is worth noting that in 2025-26 the forecast figures have Oughtonhead and Runleywood (Greensands Source) coming into supply and Periwinkle Lane and Runleywood (Chalk source) ceasing abstraction. In 2027-28 Blackford site is due to be recommissioned. The 2025 – 2030 sustainability reductions were reviewed (Codicote, Kings Walden and Redricks Lane) but they will be operational until December 2029 so will be removed in year 1 of 2030-35.

Changes from PR19 forecast – 2022-23 actual figures were 5 lower than PR19 forecasts this is due to Chartridge, Chesham, Clandon and Rakeshole North sites no longer being operational and Runleywood (Greensands source) not returned back into service yet. Oughtonhead is due back into service in 2025-26 instead of 2024-25 which accounts for the additional increase of 1 in PR19 2024-25 forecast tables.

Wr1 Table / RES1	2022-23	2023-24	2024-25
Number of groundwater works PR19	118	118	119
Number of groundwater works PR24	113	113	113

- Chartridge and Chesham ceased abstraction in August 2020 as a voluntary sustainability reduction. It was agreed with the Environmental Agency to cease abstraction early at both these groundwater sites, so this was delivered earlier than the PR19 forecast of December 2024.
- Clandon was taken out of service during this AMP due to water quality deterioration.
- Rakeshole North had turbidity issues and the water was no longer suitable to treat via UV at Rakeshole South and has not been operational since 2020-21
- Runleywood (Greensands source) initially was coming back into supply 2022-23. This project was delayed due to planning permission issues and to minimise risks associated with construction during Covid therefore will now be completed by 2025/26

RES1.13: Number of artificial recharge (AR) water supply schemes

We do not have any sources that fall into this category and no changes are proposed which would impact on forecasts for this line.

Changes from PR19 forecast - forecasts for 2023 – 2025 remain consistent with PR19 forecasts.

RES1.14: Number of aquifer storage and recovery (ASR) water supply schemes

We do not have any sources that fall into this category and no changes are proposed which would impact on forecasts for this line.

Changes from PR19 forecast - forecasts for 2023 – 2025 remain consistent with PR19 forecasts.

RES1.15: Number of saline abstraction schemes

We do not have any sources that fall into this category and no changes are proposed which would impact on forecasts for this line.

Changes from PR19 forecast - forecasts for 2023 – 2025 remain consistent with PR19 forecasts.

RES1.16: Number of reuse schemes

We do not have any sources that fall into this category and no changes are proposed which would impact on forecasts for this line.

Changes from PR19 forecast - forecasts for 2023 – 2025 remain consistent with PR19 forecasts.

RES1.17: Total number of sources

The number of sources is reflective of lines RES1.9 to RES1.16 above

Changes from PR19 forecast – changes from PR19 forecasts are documented within the individual lines above (RES1.9 to RES1.16).

RES1.18: Total number of water reservoirs

No changes are proposed which affect the number of water reservoirs over 2023 – 2025 and all of 2025 – 2030, so figures remain consistent with 2022-23 actual figures.

Changes from PR19 forecast – previously only Ardleigh was included, Chertsey was previously used for settlement and considered part of treatment and therefore excluded on this basis. Heron Lake and Queensmead Lake were excluded due to the reasons documented in RES1.9.

RES1.19: Total volumetric capacity of water reservoirs

No changes are proposed which affect the capacity of water reservoirs over 2023 – 2025 and all of 2025 – 2030, so figures remain consistent with 2022-23 actual figures and are in line with RES1.18 above.

Changes from PR19 forecast – Chertsey, Heron Lake and Queensmead Lake are all included in addition to Ardleigh. The volumetric capacity has reduced by 85MI due

to Anglian Water providing updated Ardleigh reservoir information which is now in line with their bathymetric survey report which was carried out and is a more accurate reflection of the volume.

RES1.20: Total number of intake and source pumping stations

The number of intake and source pumping stations remains unchanged at 119 until 2025-26 where Oughtonhead and Runleywood (Greensands) come back into service and Periwinkle Lane (Chalk) cease abstraction as part of sustainability reductions. In 2027-28 Blackford source comes back into supply after upgraded treatment and increases the total number to 120.

Changes from PR19 forecast – changes to source pumping stations are due to Chartridge, Chesham, Clandon, Rakeshole North and Runleywood (Greensands source) in 2022-23 and Oughtonhead not returning into service in 2024-25 (see RES1.12 for detailed explanation). Additionally, Iver standby intake pumping station, previously included at PR19 was then excluded from 2019-20 as it had not been operational for a number of years.

Wr1 Table / RES1	2022-23	2023-24	2024-25
Total number of intake and source pumping stations PR19	125	125	126
Total number of intake and source pumping stations PR24	119	119	119

RES1.21: Total installed power capacity of intake and source pumping stations

The total installed capacity will increase in 2023-24 when Iver standby intake pumps are included (although the number of intake pumping stations remains at 119 as this is a standby pumping station) and Wheathampstead has replacement pumps. 2024-25 will see an additional increase as Hunton Bridge has an additional pump added. There is an overall decrease in 2025-26, with Oughtonhead and Runleywood (Greensands source) coming back into supply but Periwinkle and Runleywood (Chalk source) both ceasing abstraction. There is also a change in this year for Amersham and Northmoor which after HS2 works will have their membranes removed so the source pumps for both will be dual function (abstraction-treatment-distribution) so kW will be apportioned (using APH) across source and booster pumping. Capacity increases in 2027-28 in line with Blackford source coming back into supply.

Changes from PR19 forecast – Digswell pumps were initially meant to be downsized due to a reduction in average deployable output, but it has now been determined that we can run the existing pumps at lower speed. Other changes in capacity are outlined in RES1.20 and RES1.12 relating to sources Chartridge, Chesham, Clandon, Rakeshole North, Runleywood (Greensands source) and Oughtonhead.

RES1.22: Total length of raw water abstraction mains and other conveyors

We are reporting 0.96km for 2022-23 to match APR and forecasting the same length up to 2029-30.

We have only one qualifying section of water main between Heron Lake and Queensmead Lake measuring 0.96km. This main is expected to remain in service until

at least 2029-30. Also at this time, no additional qualifying lengths of main are expected to be installed within this time period.

Changes from PR19 forecast – previously we were forecasting 0km. In PR24 this has increased slightly to 0.96km.

RES 1.23: Average Pumping Head

Minimal changes are expected for 'Average pumping head – abstraction' with sustainability reduction in 2024-25 the only change. Sustainability Reductions for 2025 – 2030 are profiled for the December 2029 so due to the late intervention, these have not been recognised in these data tables.

Changes from PR19 forecast – forecasts at PR19 were at an average of 18.32m for 2023 – 2025. We have revised these forecasts down slightly to 17.8m, therefore not a significant change.

RES 1.24 Energy consumption - water resources (MWh)

Refer to line CW4.7.

Changes from PR19 forecast – forecasts at PR19 were at an average of 29,384kWh for 2023 – 2025. We have revised this up to 31,867kWh, due to the overall energy consumption of the business being higher than that expected at PR19. Energy is proportional to the water produced, our forecast for distribution input at PR19 was an average of 817.6 MI/d for 2023 – 2025 however this forecast is now 856.6 MI/d, therefore reflecting a higher energy requirement.

RES1.25: Total number of raw water abstraction imports

We do not currently have any imports that sit within this category and no changes are proposed which affect the number of raw water abstraction imports over 2023 – 2025 and all of 2025 – 2030, so figures remain consistent with 2022-23 actual figures.

Changes from PR19 forecast - forecasts for 2023 – 2025 remain consistent with PR19 forecasts.

RES1.26: Water imported from 3rd parties to raw water abstraction systems

For 2022-23 we are reporting 0.00 MI/d as per APR. For 2023 – 2025 and 2025 – 2030 we are forecasting that this proportion will remain as 0.00 MI/d as we do not have any plans to import water from 3rd parties to raw water abstraction systems.

Changes from PR19 forecast - forecasts for 2023 – 2025 remain consistent with PR19 forecasts.

RES1.27: Total number of raw water abstraction exports

We do not currently have exports that sit within this category and no changes are proposed which affect the number of raw water abstraction exports over 2023 – 2025 and all of 2025 – 2030, so figures remain consistent with 2022-23 actual figures.

Changes from PR19 forecast - forecasts for 2023 – 2025 remain consistent with PR19 forecasts.

RES1.28: Water exported to 3rd parties from raw water abstraction systems

For 2022-23 we are reporting 0.00 MI/d as per APR. For 2023 – 2025 and 2025 – 2030 we are forecasting that this proportion will remain as 0.00 MI/d as we do not have any plans to export water to third parties from raw water abstraction systems.

Changes from PR19 forecast - forecasts for 2023 – 2025 remain consistent with PR19 forecasts.

RES1.29: Water Resources Capacity

The table below provides the reported Water Resources Capacity at a company scale since the reporting line came into effect in 2018. The forecast for 2023 – 2025 and 2025 – 2030 are provided in the second table shown. Water Resources Capacity is measured in terms of water resources yield, which captures the annual average volume of water available from the environment and constrained by water resources control assets (network and treatment constraints).

The Deployable Output (DO) values used to calculate the Water Resources Capacity are based on WRMP14, WRMP19 and WRMP24 values (based on a 1 in 200-year drought). WRMP14 values were applied for 2018-20, WRMP19 values are applied for 2020 – 2025 and WRMP24 values will be applied for 2025 – 2030. Where network and treatment constraints have been identified, the average DO values have been uplifted using expert judgement to take into account the sources' full capability under drought conditions. The cumulative climate change impact is then applied.

The observed and forecasted changes to Water Resources Capacity on an annual basis reflect the WRMP14 (for the years 2018-2020), WRMP19 (2020-2025) and WRMP24 (2025-2030) climate change figures (which are cumulative) and sustainability reductions which have and will result in a reduction or cessation of a source (when there is an impact on 1:200 DO). For example, the forecasted difference between the 2023-24 and 2024-25 figure is the climate change impact figure applied and the implementation of a planned sustainability reduction at Periwinkle Lane and Runleywood Chalk which will reduce the DO at both sites to zero. As a result, the Water Resources Capacity volume has reduced since reporting started in 2018 and is forecasted to continue to reduce up to 2030. It should be noted that there is a small risk of minor changes to the 2029-30 figure. Discussions are ongoing with the Environment Agency to finalise the list of sources which are subject to no deterioration licence capping in the period 2025 – 2030 (2029-30).

The data that inputs into the calculation of Water Resources Capacity is accurate and reliable. The climate change figures and 1:200 DO values are taken from WRMP14, WRMP19 and WRMP24 respectively. The climate change figures, and forecast are recalculated every WRMP cycle and this results in a small step change at the beginning of each AMP. The uplifts to the average DO values described above (following removal of network and treatment constraints), are all documented in the methodology document and associated spreadsheet (DYAA without treatment and network constraints).

Water Resources Capacity and the resulting potential DO uplifts constitute a theoretical scenario only. Affinity Water has an agreed programme of licence capping and sustainability reductions in order to leave more water in the local environment. Therefore, we need to take a cautious approach to any increases in abstraction due to the removal of the network and treatment constraints in catchments that are deemed environmentally sensitive.

Changes from PR19 forecast – The DO for Grafham (50 MI/d) was removed from Water Resources Capacity in 2022-23 following review of the methodology. It was confirmed that it is already accounted for as an import value. The same methodology has been applied to the reported figures from 2018-19 to 2021-22 and to the 2020 – 2025 and 2025 – 2030 forecasts. In addition, the 1:200 average DO for Broome was updated (difference of 0.2 MI/d) for the 2020 – 2025 and 2025 – 2030 forecasts. Therefore, the 2020 – 2025 forecasted figures presented here differ to the forecasts made at PR19 for 2020 – 2025. No other changes in the reporting method or assumptions have been made since Water Resources Capacity came into effect. In addition, there are no interdependencies between this metric and other lines or tables.

Water Resources Capacity reported figures from 2018 to date

Financial year	Water Resources Capacity (MI/d)	Comments
2018-19	1058.61	Based on WRMP14 climate change projection
2019-20	1057.50	
2020-21	981.94	Based on WRMP19 climate change projection
2021-22	980.76	
2022-23	973.21	

2020 – 2025 and 2025 – 2030 Water Resources Capacity forecast

Financial year	Water Resources Capacity (MI/d)	Comments
2023-24	972.01	Based on WRMP19 climate change projection. The reduction in capacity from 2023-24 to 2024-25 is reflective of the 2020 – 2025 SRs.
2024-25	938.19	
2025-26	942.86	Based on WRMP24 climate change projection. The reduction in capacity from 2028-29 to 2029-30 is reflective of the 2025 – 2030 SRs.
2026-27	942.49	
2027-28	942.11	
2028-29	941.74	
2029-30	919.06	

RES1.30: Total number of impounding reservoir assets

We have one impounding reservoir (Heron Lake) with its own source that feeds into our second impounding reservoir (Queensmead Lake) although this also has its own source. We have therefore concluded that we have two assets and two sources.

Changes from PR19 forecast – this is a new line which has only been introduced for PR24 therefore no previous forecast figures exist from PR19.

RES1.31: Total number of new eels/fish entrainment screens

This line has a nil return as Affinity Water do not have any schemes under the relevant WINEP Driver codes for PR24.

Changes from PR19 forecast - forecasts for 2023 – 2025 remain consistent with PR19 forecasts.

Our river abstractions currently have appropriate entrainment screens installed and operational. There is a WINEP investigation (08AF100001): Survey, design and options appraisal for upgrade of Walton WTW fish screens for implementation in Year 1 of 2030-35.

RES1.32: Total number of new eels/fish passes

This line has a nil return as Affinity Water do not have any schemes under the relevant WINEP Driver codes for PR24 and there is no requirement under WINEP for 2025 – 2030 to install new eel/fish passes within our landholdings/assets.

Changes from PR19 forecast - forecasts for 2023 – 2025 remain consistent with PR19 forecasts.

There is one WINEP scheme: 08AF100007 Lower Thames fish passage and weirs improvement scheme. This is a joint funding contribution from Affinity Water alongside funding from Thames Water and South East Water to an Environment Agency (EA) led and delivered project on EA assets that are considered to benefit our abstractions. These are not new eels/fish passes but improvements to existing EA assets.

RES1.33 Total number of new wetlands

This line has a nil return as Affinity Water do not have any schemes under the relevant WINEP Driver codes for PR24. We are delivering a programme of river restoration and habitat enhancement works which may include wetland creation where appropriate. This is included under Water Framework Directive.

Changes from PR19 forecast - forecasts for 2023 – 2025 remain consistent with PR19 forecasts.

RES1.34: Total area of new wetlands

This line has a nil return as Affinity Water do not have any schemes under the relevant WINEP Driver codes for PR24. We are delivering a programme of river

restoration and habitat enhancement works which may include wetland creation where appropriate. This is included under Water Framework Directive.

Changes from PR19 forecast - forecasts for 2023 – 2025 remain consistent with PR19 forecasts.

RES1.35: Total number of investigations; (WINEP/NEP) desk based only

This line has a nil return as Affinity Water do not have any WINEP investigations that have been defined in the PR24 WINEP submission as 'desk based only'. All WINEP investigations to be delivered in 2025 – 2030 are reported under lines RES1.36 and RES1.37.

Changes from PR19 forecast - forecasts for 2023 – 2025 remain consistent with PR19 forecasts.

RES1.36: Total number of investigations; (WINEP/NEP) survey, monitoring or simple modelling

As part of our PR24 WINEP programme agreed with the Environment Agency and Natural England, we have **six investigations in total** defined as 'survey, monitoring or simple modelling' or equivalent. All investigations reported in this line are due for completion by 30/04/2027 and have therefore been included in the data tables each year up to the 2027-28 reporting period.

Changes from PR19 forecast - forecasts for 2023 – 2025 remain consistent with PR19 forecasts.

The following table shows the investigations reported under RES1.36.

No.	WINEP Action ID / Component	Action Name	WINEP Driver	Investigation scope summary	Completion date
1	08AF100001 a	Fish screens upgrade options appraisal	EE_INV	Survey, design and options appraisal for upgrade of Walton WTW fish screens for implementation in Yr 1 AMP9	30/04/2027
2	08AF100002 a	Horsell Common SSSI investigation	SSSI_INV	Investigation into mains pipe failure and the impact on the SSSI. Options appraisal developed to mitigate impacts.	30/04/2027
3	08AF100002 b	Cowslip Meadow SSSI Luton investigation	SSSI_INV	Investigation into drought resilience of Cowslip Meadow SSSI	30/04/2027
4	08AF100002 c	Dungeness SSSI investigation	SSSI_INV	Investigation in to the in-combination impacts on the HD site from water management and abstraction on the Dungeness peninsular	30/04/2027
5	08AF100004 a	Investigate options for species reintroduction in Affinity Water supply area	NERC_INV	Investigation into water company contribution to the distribution and abundance of a priority species in Affinity Water supply area	30/04/2027
6	08AF100009 a	Raw Water Transfer Mitigation Trials	INNS_INV	Affinity Water contribution towards partnership investigation into Raw Water Transfer INNS Mitigation Trials	30/04/2027

RES1.37: Total number of investigations; (WINEP/NEP) multiple surveys, and/or monitoring locations, and/or complex modelling water

For 2023 – 2025, we forecast delivery of the remaining eight investigations defined as ‘multiple surveys, and/or monitoring locations, and/or complex modelling water’ to be completed in the 2024-25 reporting period.

As part of our PR24 WINEP programme agreed with the Environment Agency, we have a total of 32 investigations defined as ‘multiple surveys, and/or monitoring locations, and/or complex modelling water’. 20 of the investigations are due for completion on 31/12/2026 (2026-27 reporting year) with the remaining 12 due for completion on 30/04/27 (2027-28 reporting year). Each investigation has been included in the reporting line each year up till the respective completion date.

Changes from PR19 forecast - forecasts for 2023 – 2025 remain consistent with PR19 forecasts.

The following table shows the investigations reported under RES1.37.

No.	WINEP Action ID / Component	Action Name	WINEP Driver	Investigation scope summary	Completion date
1	08AF100026 a	Investigate WB deterioration risk	WFD_NDINV_WRFlow	Cam (US Newport) - Investigate increased risk of deterioration found in July 22 compliance assessment.	31/12/2026
2	08AF100026 b	Investigate WB deterioration risk	WFD_NDINV_WRFlow	Cam (Newport to Audley End) - Investigate increased risk of deterioration found in July 22 compliance assessment.	31/12/2026
3	08AF100026 c	Investigate WB deterioration risk	WFD_NDINV_WRFlow	Cam (Audley End to Stapleford) - Investigate increased risk of deterioration found in July 22 compliance assessment.	31/12/2026
4	08AF100026 d	Investigate WB deterioration risk	WFD_NDINV_WRFlow	Wicken Water - Investigate increased risk of deterioration found in July 22 compliance assessment.	31/12/2026
5	08AF100026 e	Investigate WB deterioration risk	WFD_NDINV_WRFlow	Debden Water - Investigate increased risk of deterioration found in July 22 compliance assessment.	31/12/2026
6	08AF100026 f	Investigate WB deterioration risk	WFD_NDINV_WRFlow	Wendon Brook - Investigate increased risk of deterioration found in July 22 compliance assessment.	31/12/2026
7	08AF100026 g	Investigate WB deterioration risk	WFD_NDINV_WRFlow	Slade - Investigate increased risk of deterioration found in July 22 compliance assessment.	31/12/2026
8	08AF100027 a	Investigate effects of GW abstractions on the WB	WFD_INV_WRHMWB	Hiz (through Hitchin) - Investigate effects of GW abstractions on WB and identify solutions to improve flow to EFI or alternative flow target	31/12/2026
9	08AF100028 a	Investigate effects of GW abstractions on biodiversity and GDTE	NERC_INV	Hiz (DS Hitchin) - Investigate effects of GW abstractions on biodiversity and GDTE	30/04/2027

No.	WINEP Action ID / Component	Action Name	WINEP Driver	Investigation scope summary	Completion date
10	08AF100029 a	Company contribution to reducing abstractions to meet outcome of the regional plan	EDWRMP_INV	Ivel (US Henlow) - Investigation into water resource alternative options in the Ivel US Henlow catchment	31/12/2026
11	08AF100030 a	Investigation into deterioration in WB	WFD_INV_WRFflow	Stansted Brook - WR Investigation	31/12/2026
12	08AF100031 a	Investigation into deterioration in WB	WFD_INV_WRFflow	Alderbourne - WR Investigation	31/12/2026
13	08AF100032 a	Company contribution to Regional Plan environmental destination	SSSI_INV	Denham Lock Wood SSSI	30/04/2027
14	08AF100032 b	Company contribution to Regional Plan environmental destination	SSSI_INV	Fray's Farm Meadows SSSI	30/04/2027
15	08AF100032 c	Company contribution to Regional Plan environmental destination	SSSI_INV	Old Rectory Meadows SSSI	30/04/2027
16	08AF100033 a	Investigation into secondary effects of planned	WFDGW_INV	Upper Lee Chalk - Investigation into secondary effects of planned SR, GW emergence, fluvial flooding and aquifer water quality	30/04/2027

No.	WINEP Action ID / Component	Action Name	WINEP Driver	Investigation scope summary	Completion date
		sustainability reductions			
17	08AF100033 b	Investigation into secondary effects of planned sustainability reductions	WFDGW_INV	Mid-Chilterns Chalk - Investigation into secondary effects of planned SR, GW emergence, fluvial flooding and aquifer water quality	30/04/2027
18	08AF100034 a	Investigation into secondary effects of planned sustainability reductions	WFDGW_INV	Upper Bedford Ouse Chalk - Investigation into secondary effects of planned SR, GW emergence, fluvial flooding and aquifer water quality	30/04/2027
19	08AF100034 b	Investigation into secondary effects of planned sustainability reductions	WFDGW_INV	Cam and Ely Ouse Chalk - Investigation into secondary effects of planned SR, GW emergence, fluvial flooding and aquifer water quality	30/04/2027
20	08AF100035 a	Investigation into alternative GW sources availability	EDWRMP_INV	Investigate alternative GW sources availability in the Slough area	31/12/2026
21	08AF100036 a	Investigate effects of GW abstractions on WB	WFD_INV_WRFlow	Nailbourne and Little Stour - Investigate into reasons for failing WFD status and potential link to GW abstractions	31/12/2026
22	08AF100036 b	Investigate effects of GW abstractions on WB	WFD_INV_WRFlow	North and South Streams at Eastry - Investigate into reasons for failing WFD status and potential link to GW abstractions	31/12/2026

No.	WINEP Action ID / Component	Action Name	WINEP Driver	Investigation scope summary	Completion date
23	08AF100036 c	Investigate effects of GW abstractions on WB	WFD_INV_WRFlow	North and South Streams at Northbourne - Investigate into reasons for failing WFD status and potential link to GW abstractions	31/12/2026
24	08AF100036 d	Investigate effects of GW abstractions on WB	WFD_INV_WRFlow	North and South Streams in the Lydden Valley - Investigate into reasons for failing WFD status and potential link to GW abstractions	31/12/2026
25	08AF100037 a	Investigate effects of GW abstractions on WB	WFD_INV_WRFlow	Seabrook Stream to Royal Military Canal at Hythe - Investigate into reasons for failing WFD status and potential link to GW abstractions	31/12/2026
26	08AF100038 a	Investigate WB deterioration risk	WFD_NDINV_WRFlow	Dour from Kearsney to Dover - Investigate risk of deterioration with focus on saline intrusion	31/12/2026
27	08AF100038 a	Investigate WB deterioration risk	WFD_NDINV_WRFlow	Upper Dour - Investigate risk of deterioration with focus on saline intrusion	31/12/2026
28	08AF100039 a	Investigation into GW_SW interaction of non-perennial reaches of Chalk Streams	NERC_INV	Research project to characterise Chalk Streams non-perennial reaches for Cam and Granta Rivers. This project will contribute towards the Regional Plan environmental destination.	30/04/2027
29	08AF100039 b	Investigation into GW_SW interaction of non-perennial reaches of Chalk Streams	NERC_INV	Research project to characterise Chalk Streams non-perennial reaches for Beane and Ver Rivers. This project will contribute towards the Regional Plan environmental destination.	30/04/2027
30	08AF100040 a	Lower London Tertiaries Investigation	WFDGW_INV	Investigation of the role of superficial deposits in the river baseflow of the Rib, Ash and Stort catchments	30/04/2027
31	08AF100040 b	Investigate the role of the superficial	WFDGW_INV	Investigate role of LLT deposits in the Rib Ash Stort catchments	30/04/2027

No.	WINEP Action ID / Component	Action Name	WINEP Driver	Investigation scope summary	Completion date
		deposits within WFD hydrological regime			
32	08AF100049 a	Investigations feedback to WRSE/WRE Env Destination	EDWRMP_INV	Complex Variation Licence Change - WINEP investigation results to be feedback to regional WRSE/WRE groups for the definition of the Env Destinations	31/12/2026

RES1.38: Total number of investigations; (WINEP/NEP)

A **total number of 38 WINEP investigations** with the relevant driver code have been included in our PR24 WINEP programme and this cumulative number includes all investigations reported in lines RES1.36 and RES1.37.

Changes from PR19 forecast - forecasts for 2023 – 2025 remain consistent with PR19 forecasts.