

## Unplanned Outages

### Independent Technical Assurance Statement

10<sup>th</sup> May 2019

Halcrow Management Sciences has been appointed by Yorkshire Water Services to provide independent technical assurance of their regulatory submissions including those required to support 2019 Price Review and the Annual Performance Report.

Through the PR19 IAP process, Ofwat has requested that all companies provide fully audited 2018/19 performance data for Unplanned Outages by 15 May 2019. This should be based on the latest performance and updated methodologies and should include any updates to 2019/20 to 2024/25 forecasts. Accompanying commentaries should also include current and forecast company level peak week production capacity (PWPC) (MI/d), the unplanned outage (MI/d) and planned outage (MI/d).

Through meetings and information exchanges, we have reviewed and tested the methodologies, processes and supporting evidence on which the data and statements are based, and we have considered the material accuracy of these statements, the performance data presented, and the conclusions drawn by Yorkshire Water Services. We have reviewed the following relevant information:

- 2019-annual-performance-report-tables.xlsx
- Annual Performance Reporting Procedure Unplanned Outage.docx
- APR Assurance Statement - Unplanned Outage.docx (*version sent on 25/04/2019*)
- APR19 Consistency Measure RAG - Unplanned outage.docx (*version sent on 23/04/2019*)
- Asset Outage - Unplanned Outage - 2018 2019 v3.xlsx (*version sent on 23/04/2019*)
- Confidence Grade Calculations.xlsx

The assured data is as follows:

	2018/19	2019/20 (forecast)	2020/21	2021/22	2022/23	2023/24	2024/25
Unplanned Outage (%)	5.81	5.81	5.73	5.65	5.56	5.42	5.27
Unplanned Outage (MI/d)	95.85	95.85	96.13	94.79	93.28	91.68	89.14
PWPC (MI/d)	1649.67	1649.67	1677.73	1677.73	1677.73	1691.51	1691.51
Planned Outage (MI/d)	24.41	24.41	24.41	24.41	24.41	24.41	24.41

There remain a number of recommendations on the procedures which YW are considering but none of these would be likely to materially change the 2018/19 figures reported. However, we are concerned that: assumptions and extrapolations used to derive the 2018/19 figures, whilst reasonable, may be conservative and; that the forecasts are based on an abnormally dry, one-year sample, when production strategy was atypical, so may be unreliable (unachievable or achieved through process improvements and refined assumptions). We appreciate there is no simple resolution to this but recommend that YW investigate whether there is a surrogate measure which may provide additional context.

Overall, we conclude that the information provided in this submission provides a reasonable assessment of their current performance on these measures but that the forecasts have a lower level of confidence.

CWJ Turner

Director, Halcrow Management Sciences Limited