Little River Management Ltd and Fish Legal: factual points of contention

We believe the following factual areas (at a minimum) have not been satisfactorily resolved in the documentation accompanying the Drought Permit application, and are (therefore) unlikely to be able to be resolved via an 'agreement of facts' prior to a hearing:

Drought Permit ('emergency') mitigations

Water aeration proposal: the APEM report (ref. 2.2, appx 1) provides for emergency oxygen aeration when levels fall to 6.5 mg/l[1]. We are not confident that this would be effective to prevent severe salmon stress/deaths, and would like at a minimum to see confirmation of this from similar experience elsewhere.

Fish rescue proposal: the APEM report[2] proposes fish (presumably including both juvenile salmonids, adult salmonids and other species) capture and relocation if/when the reaeration is proving inadequate. It merely proposes using "standard methods" for such capture – ie. inadequate details of such a complex and risky procedure have been provided and it seems in fact to have been a desktop exercise. We have severe doubts that this would be a successful procedure[3], and need at a minimum to see details of comparable experience from elsewhere.

Potential supplementary use of Testwood Lakes: no explanation appears to have been provided of how or whether the Testwood Lakes can be drawn on to, potentially, supplement river flows at times critical to the fish (eg. at lowest diurnal oxygen levels?) and/or of highest public demand

Hatch management plan: the hatches need to be extremely carefully managed during very low flows to direct flows to areas essential to fish survival and (in appropriate migration conditions) to aid migration (see below). No such plan has been produced by or with SW, and now needs to be done urgently.

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[1] "It is expected that this [aeration] system would provide an oxygenated refuge area in the immediate vicinity of the bridge crossing [below the abstraction] providing a vital refuge area for fish up to 250m downstream." (APEM report, p. 14)

[2] P. 17

[3] Some specific summary points from the fishery managers (LRM):

- No consideration of tide
- No consideration their aeration will mobilise silt. Turbidity plummets O2 as well as releases other nasty chemicals into the water – the proposed site downstream of the waterworks bridge is one of the siltiest places on the lower river. This is completely unproven and untested.
- The aeration locations ignore our Proof of Evidence from Vic Foot's details of the 1976 drought and locations of fish in distress on the Lower Test.
- No consultation or liaison with river keepers
- No local practical knowledge or input
- No VM visual monitoring point downstream of the Nursling Industrial Estate outfall … yet they mention possible pollution!
- Fish rescue methodology completely untested and impractical – I would go so far as to say irresponsible to use this as a mitigation technique as it will kill fish and do more harm than good.
- No mention of a hatch protocol to divert water into priority reaches.
- They propose to rescue and release juvenile salmon from Wire House Stream to The Little River – I would suggest this spells certain death for those parr.

Migration flows management: with the DP potentially lasting into October or later, which is the most critical time for salmon migration in the Test, close attention needs to be paid to ensuring that this critical 'window' is not lost, eg. by assessing how to optimise hatch (flow) management. This should be part of the hatch management plan which has not yet been developed (by SW in liaison with LRM and the EA)

Non-implementation of Blackwater sea trout study mitigations: despite a study, none of the resulting mitigation recommendations have yet been implemented. It may or may not be too late to do some of this now, in time for the DP.

Non-assessment of diurnal temperature variations on salmon migration: It may or may not be too late to do some of this now, in time for the DP.

Control of pollution from Nursling industrial estate impact on Little River salmon migration: It may or may not be too late to do some of this now, in time for the DP.

Demand management, etc issues

"Deployed enhanced resource to reduce network leakage" (ref. 1.4, p.36). We are not convinced that network leakage, in the Southampton West and Isle of Wight zones, has been reduced as fast as it could have been (or at all), given that (a) the 2022-23 leakage target or assumption for IoW was 2.87 mld, but was in fact 4.92 mld (ref. 1.4, p.16); and (b) overall leakage levels for the Hampshire WRZ seem to have shown no improvement over the past year (ref. 1.4, p.16)

"Undertaken enhanced promotion of water efficiency" (ref. 1.4, p.36). We are not convinced that (a) this promotion has been adequate or as strong as that of other water companies; and (b) that it has been effective, given that average and maximum abstraction rates have evidently[4] *increased* substantially from about October 2021 to date by comparison with the preceding two years.

TUBs: we see that implementation has now been brought forward to 6th August, which we suppose is the best that can now be done in the circumstances.

Bulk transfers: we need assurance that no bulk transfers are being made out of the Hampshire West zone or will be for the duration of the DP; and that the Portsmouth Water bulk transfer is being and will be made to the maximum level to protect River Itchen flows (and thereby minimise any need for any bulk transfer from Hampshire West to Hampshire East for the duration of the DP)

[4] See eg. River Test Drought Permit Application – 1.2 Reasons for the Permit, 19.7.22, p.24, Figures 10 and 11