
SOUTHERN WATER AND ENVIRONMENT AGENCY INQUIRY

SWS'S PROVISIONAL CASE: NOVEMBER 2017

PLEASE NOTE THAT THE CASE SET OUT BELOW IS PROVISIONAL PENDING FURTHER MODELLING RESULTS. ACCORDINGLY THE CASE MAY CHANGE BUT IT IS HOPED THAT IT IS NONETHELESS HELPFUL FOR THE AGENCY TO SEE SWS' PROVISIONAL CASE PRIOR TO EXCHANGE OF STATEMENTS OF CASE GIVEN THE TIGHT TIMESCALES FOR INQUIRY PREPARATION

Overview of Southern Water (SWS) case

1. SWS's objective in the inquiry is to ensure that it is able to secure an appropriate level of essential public water supply to its Hampshire and Isle of Wight Water Resources Zones to enable it to comply with its statutory obligation to ensure a secure supply of water pursuant to section 37(1) Water Industry Act 1991.
2. In drought conditions where supply of water is constrained by rainfall the options available to Southern Water to meet its supply obligation are 1) measures to restrict demand and 2) on the other side of the equation, secure greater supplies of water.
3. The only [immediately available] water resource options that will enable SWS to secure essential public water supply during drought conditions or other serious water shortage scenarios are abstraction of greater quantities of water from the River Test, Candover groundwater or the River Itchen, than would ordinarily be authorised under the proposed Testwood, Candover and Itchen abstraction licences. SWS's forthcoming draft water resource management plan ("WRMP") will demonstrate that there are no alternative large scale water resource solutions available for approximately 10 years. The WRMP will set out the alternative water resource schemes to be developed to meet the Environment Agency's (EA) environmental requirements for the Test, Itchen and Candover for the longer term.

4. SWS's draft WRMP will present a potential permanent solution including taking more water from Portsmouth Water and constructing a large desalination plant, amongst other schemes.
5. In the meantime however, SWS's forthcoming drought plan proposes the following sequence of actions which attempt to reconcile the conflicting supply and environmental obligations imposed on the company. The sequence of action has the following aims:
 - a. to avoid temporary use bans (TUBS) in droughts less severe than a 1 in 10 year drought;
 - b. to avoid restrictions on commercial water use in droughts less severe than a 1 in 100 year drought;
 - c. to avoid the most severe water uses restriction (rota cuts / stand pipe supplies) in droughts less severe than a 1 in 500 year drought.

Proposed sequence of drought actions

6. The proposed sequence in drought conditions is as follows:
 - a. Abstract from the Test below the Agency's proposed hands off flow (HoF) of 355 million litres per day (Ml/d) down to [265] Ml/d (this avoids the likelihood of TUBS being in place for a large part of the next 10 years).
 - b. Implement all water efficiency and water use restrictions, short of impacting on commercial uses, subject to a drought order having been obtained to authorise some of these restrictions, in line with drought stages 1 to 3 as defined in, and in accordance with the triggers set out in, SWS's forthcoming Drought Plan;
 - c. Abstract up to 27 Ml/d from the EA's existing Candover groundwater abstraction boreholes in order to operate the Candover augmentation scheme, re-engineered so that there is an environmental flow into the Candover Stream, but the location of major discharge is to the River Itchen.
 - d. Abstract from the Test below [265] Ml/d down to a baseline of [200 Ml/d].
 - e. Implement restrictions on commercial uses of water by further TUBS and further non-essential use drought order in line with drought stage 4 as defined, and in accordance with the triggers set out in, SWS's forthcoming Drought Plan;
 - f. As a measure of last resort abstract below the 198 Ml/d HoF from the River Itchen (on current modelling this is only expected in droughts of a 1 in 160 year severity).

- g. Coincident with 'f', Portsmouth Water will also need to abstract below the Riverside Park HoF of 194 Ml/d at Gaters Mill on the River Itchen in order to continue its essential supply to SWS. Portsmouth Water and SWS have reached an understanding that, as a general rule, SWS will apply for the drought order necessary to allow this.

Mechanism to implement SWS's sequence of drought actions

7. SWS's primary position is that the only way to guarantee that the above sequence of drought actions is available to SWS is to have special licence conditions in place authorising abstraction beneath the hands off flow limits on the Itchen and Test and above the proposed 5 Ml/d abstraction limit on the EA's proposed renewed Candover groundwater abstraction licence.
8. If there is not a special condition authorising temporary relaxation of the proposed Testwood and Itchen licence conditions, the only options available to SWS to secure the public water supply are to apply for and obtain a drought order or permit to authorise abstraction beneath the hands off flow limits on the Itchen and Test or to request ad hoc authorisation of the same from the EA, as suggested by the Agency.
9. SWS's position is that reliance on drought permits or orders to secure essential water supply, without any fall-back plan, is insufficiently reliable to enable it to secure essential public water supply.
10. Nonetheless, in order to accommodate the EA's preference that any relaxation to the abstraction regime proceed principally via drought permits and drought orders so far as is possible to do so, SWS proposes to apply for the drought orders/permits to authorise the temporary variations to the Itchen, Test and Candover licences necessary to implement SWS's plan to secure essential public water supply during drought in the period until the permanent solution proposed in the new SWS draft WRMP can be implemented.
11. There are however two limitations to how far SWS can accommodate this preference.
12. First, SWS cannot rely on recourse to drought permits/drought orders to abstract beneath the EA's proposed hands off flow of 355 Ml/d on the Test. Modelling

shows that in order to abstract the EA's proposed daily limit of 80 MI/d from the Test it will be necessary to abstract beneath 355 MI/d during low severity drought (i.e. in a 1 in 20 year drought). If it is necessary to apply a drought order in order to abstract beneath 355 MI/d there is a risk that SWS would have to apply for multiple drought orders in the ten year period until a long-term water resource solution can be implemented. SWS would have to implement TUBs sufficiently in advance of applying for a drought order for some benefit to accrue, creating the possibility that TUBs would need to be in place throughout the ten year period. To avoid these impractical and undesirable outcomes, SWS seeks a revised hands off flow of [265] MI/d until 1 April 2027.

13. Second, SWS cannot risk breaching its statutory supply obligation to secure essential public water supply. Due to the risk that SWS will not obtain the required drought orders in sufficient time, SWS requires, as a fall back, permission within the Itchen, Test and Candover licences to authorise temporary relief from the hands off flow limits on the Itchen licences and the daily abstraction limit on the Candover licence, provided that SWS has applied for the relevant drought order or permit specified in its drought plan.

Summary of SWS case for each of the licences

(a) Testwood licence.

14. SWS is prepared to accept significant reductions to the annual licence limit from 49,900 MI to 29,200 MI and the daily licence limit from 136 MI/d to 80 MI/d. This represents a significant concession on the part of SWS. SWS had planned to make use of the headroom available under the Testwood licence (the difference between the 80 MI/d that SWS requires for normal conditions and the 136 MI/d permitted under the licence) to supply a new scheme for the transfer of up to 45 MI/d of water from the Test to Otterbourne. SWS has already invested a significant amount of time and money into this project. SWS is prepared to proceed on the basis that there is currently a lack of evidence, and therefore a degree of uncertainty, about the impact of abstraction above 80 MI/d and will therefore accept the daily licence limit of 80 MI/d until 2027. This concession means that SWS is no longer able to promote the Testwood-Otterbourne scheme

as an interim water resource scheme to transfer water abstracted from the River Test to avoid taking additional water from the River Itchen.

15. A pipeline between Testwood-Otterbourne is still expected to be required to enable SWS to transfer water between its WRZs. The emerging draft WRMP indicates this could be to transfer water provided from a proposed desalination plant. SWS cannot rule out the use of the Testwood-Otterbourne scheme as a long term alternative water resource utilising water abstracted from the River Test until more data is obtained about the impact of abstraction above 80 Ml/d from the River Test. To do so would be an abdication of its statutory duties to secure the long term solution that is most economic, efficient and environmentally sustainable.
16. SWS therefore requests the EA to enter into an agreement under section 20 WRA 1991 whereby the EA agrees to facilitate data collection on the impact of the Testwood abstraction, including making use of its powers of compulsory access where access to private land is required to carry out necessary monitoring, in return for SWS's agreement to fund and operate a data collection and monitoring scheme.
17. The loss of headroom under the Testwood licence also presents a significant risk to SWS during a water shortage resulting from a force majeure event, such as a major pollution or terrorist event). SWS therefore requires a special condition on the Testwood licence authorising abstraction up to 96 Ml/d in a non-drought force majeure scenario.
18. SWS further requests that the proposed Testwood licence be time-limited to expire on 1 April 2027. This will ensure that a review of the Testwood licence conditions takes place once data is available to better assess the impact of abstraction on the Test.
19. As explained above, SWS cannot accept the EA's proposed hands off flow of 355 Ml/d. The effect of this hands off flow limit will be that the SWS is unable to abstract the EA's proposed daily limit of 80 M/d in low severity droughts (1:20 year). It is unrealistic and impracticable to expect SWS to apply for a drought order to authorise abstraction beneath the hands off flow with the frequency that

would arise in a 1: 20 year drought. SWS therefore seeks a revised HoF of [265 Ml/d] until 1 April 2027.

20. SWS will otherwise agree the EA's proposed changes to the Testwood licence but on the basis that it includes a special condition enabling abstraction beneath the hands off flow from the River Test provided the following conditions are met:

- a. SWS has implemented all demand-side water efficiency measures, including media campaigns to influence water use, and has implemented TUBS in line with stages 1 and 2 of drought as defined in, and in accordance with the triggers set out in, SWS's forthcoming Drought Plan;
- b. SWS has applied for a drought order or permit authorising abstraction below the hands off flow.
- c. SWS has applied for a drought order authorising SWS to implement non-essential use restrictions in line with stage 3 of drought as defined in, and in accordance with the triggers set out in, SWS's forthcoming Drought Plan;
- d. In circumstances where SWS has obtained a drought order, SWS has implemented non-essential water use restrictions in line with stage 3 of drought as defined in, and in accordance with the triggers set out in, SWS's forthcoming Drought Plan;
- e. Flows in the River Test are at or below [265 Ml/d].

Candover licence

21. SWS no longer challenges the EA's proposed changes to its Candover licence in respect of normal operation of groundwater abstraction and discharge to the Candover stream. This is because the EA's application to vary its licence is predicated on an assessment of the environmental impact of the current augmentation scheme and does not include any assessment of SWS's re-engineered use of the Candover augmentation scheme. Instead, and as set out in SWS's forthcoming Drought Plan, in drought conditions SWS plans to apply for a drought order or permit authorising the following under the Candover licence:

- a. abstraction of up to a maximum daily abstraction rate of 20 Ml/d for June to August and 27 Ml/d for the remainder of the year;
- b. discharge of up to 27 Ml/d via a new pipeline to a new discharge point to be located on the River Itchen and up to 2 Ml/d into the Candover stream via the existing outfall, with the total discharge not to exceed 20 Ml/d during June and August and 27 Ml/d the remainder of the year.
- c. a total volume of abstraction of [xx MI] [to be quantified following modelling]

22. In order to ensure that the Candover augmentation scheme can be operated as intended by the drought order and to avoid the risk of delay in obtaining the required drought order, SWS seeks a special condition enabling abstraction above the daily abstraction limit and discharge (as set out above) provided the following conditions are met:

- a. SWS has implemented all demand-side water efficiency measures, including media campaigns to influence water use, and has implemented TUBS in line with stages 1 and 2 of drought as defined in, and in accordance with the triggers set out in, SWS's forthcoming Drought Plan;
- b. SWS has applied for a drought order or permit authorising abstraction above the daily abstraction limit.
- c. SWS has applied for a drought order authorising SWS to implement further non-essential use restrictions in line with stage 3 of drought as defined in, and in accordance with the triggers set out in, SWS's forthcoming Drought Plan;
- d. In circumstances where SWS has obtained a drought order, SWS has implemented further non-essential use restrictions in line with stage 3 of drought as defined in, and in accordance with the triggers set out in, SWS's forthcoming Drought Plan;
- e. Flows in the River Itchen are at [flow level to be confirmed following further modelling].

23. In order for the Candover augmentation scheme to remain a viable drought scheme, SWS needs to be able to utilise the EA's existing abstraction infrastructure. SWS therefore seeks the inclusion of a condition on the EA's Candover licence that the EA maintains the infrastructure (i.e. boreholes, pumping, power and other control facilities) to enable abstraction up to 27 MI/d and [X] MI/year.
24. SWS also requests the EA to enter into an agreement under section 20 WRA 1991 whereby the EA agrees to facilitate data collection on the impact of the Candover abstraction, including making use of its powers of compulsory access where access to private land is required to carry out necessary monitoring, in return for SWS's agreement to fund and operate a data collection and monitoring scheme.
25. SWS also seeks confirmation that the renewed licence be extended to 2027.

Itchen licences

26. SWS will agree to the EA's proposed changes to the Itchen licences but on the basis that they each include a special condition enabling abstraction beneath the hands off flow from the River Itchen provided the following conditions are met:
 - a. SWS has implemented all demand-side water efficiency measures, including media campaigns to influence water use, and has implemented TUBS in line with stages 1 to 4 of drought as defined in, and in accordance with the triggers set out in, SWS's forthcoming Drought Plan;
 - b. SWS has applied for drought order or permit authorising SWS abstraction beneath the 198 MI/d HoF from the River Itchen and to authorise abstraction by Portsmouth Water below of the 194 MI/d HoF that would otherwise constrain its abstraction at Gaters Mill.
 - c. SWS has applied for a drought order authorising SWS to implement further water use restrictions in line with stages 3 and 4 of drought as defined in, and in accordance with the triggers set out in, SWS's forthcoming Drought Plan;
 - d. In circumstances where SWS has obtained a drought order authorising further restrictions, SWS has implemented all restrictions in line with stages 3 and 4 of drought as defined in, and in accordance with the triggers set out in, SWS's forthcoming Drought Plan;

- e. Flows in the River Itchen are at 198 Ml/d;
- f. The only available alternative source to abstraction beneath the hands of flow on the River Itchen is the imposition of more severe water use restrictions (rota cuts / stand pipe supplies) on businesses and residents in SWS Hampshire and / or Isle of Wight water supply areas;
- g. Appropriate compensatory measures have been secured

Legal compliance

SWS, the Environment Agency and the Secretary of State are subject to a myriad of EU and UK water industry and environmental legislation whose requirements have the potential to impose conflicting demands on the company as has occurred in this case. Through ecological and economic evidence, SWS will demonstrate that its interim sequence of drought actions and force majeure provisions reconciles the conflicting supply and environmental obligations imposed on the company.

SWS

Provisional case as at 23 November 2017