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David Hannon, Head of Legal Services,  
United Utilities Water Limited

Dear Sir

**Re United Utilities Drought Permit Order Application to the Environment Agency to vary abstraction conditions from Ullswater lake and maintained HOF's to the River Eamont**

REDFA, represents the combined Rod fisheries and Riparian Owner interests on 20 important game fishing waters extending from the Ullswater outlet to the River Eamont at Pooley Bridge, downstream to its River Eden confluence at Waters Meet and beyond to the estuarial reaches below Beaumont.

REDFA has been a River Eden Stakeholder, attending meetings and contributing to the Ullswater DPO Consultation draft document released on 31<sup>st</sup> March 2016.

REDFA have attended several UU Technical meetings in the preparation of the development of the WRMP19 and provides practical river experience over many years and can relate this to complex modelling forecasts. We have also undertaken our own investigations of low lake and river levels in the May 2017 pre drought conditions and for earlier data back to 1970.

The objections raised reflect REDFA's interest in the sphere of Fisheries management, but do nevertheless extend to wider catchment management concerns and interpretation of weather and hydrological impacts. These will be of lesser or greater concern as impacts to other species groups and habitats.

The Angling Trust supports these objections and asks to be registered as an interested party.

These comments and objections refer to information and data available prior to the release of the 25<sup>th</sup> July application documents, and as thorough an examination of the new application documents that 24 hours permits. They are nevertheless important and relevant.

**REDFA Objections**

**Licence application notification to REDFA as principle river stakeholder**

REDFA and its Member Riparian Owner interests and fisheries are and have been the principle interest to this application. REDFA has attended and contributed fully at the UU stakeholder Consultation Drought Order events and later WRMP19 technical meetings.

There has been an extended dialogue with UU over Ullswater abstractions culminating in a rod fisheries group meeting with UU and Cascade consulting.

Neither the EA or UU notified REDFA directly of the Ullswater application and in view of the above we Object strongly to this and can only conclude there was no intention to do so.

This is a repeat of the previous Ullswater Drought Order application process when REDFA registered strong objections concerning lack of notification process.

### **Access to supporting documents from UU and reports from new Consultants**

REDFFA became aware of the possibility of Windemere and Ullswater submissions in the final paragraph of an EA - NW "Dry weather update" released on 20.07.19 at 13.21.

As a result of this, REDFA requested further information and details from the EA on the 22<sup>nd</sup> July and received a response, pm on 23<sup>rd</sup> July and link to the UU advertised application of 19.07.19. This contained details of documents that could be viewed at EA's Penrith offices.

These supporting documents contain two new large documents :-

~ 86 page - UU - Statement of Support for Ullswater Drought Permit

~ 162 page - Ricardo - Environmental Assessment of Ullswater Drought Permit

On request REDFA received these in pdf form at midday 25<sup>th</sup> July with an Objection close of 5.00pm 26<sup>th</sup> July.

Thorough examination of these critical documents cannot be made in this timescale and our Objections have been constrained by this.

We strongly Object to this and would ask if Consultee's have had sufficient time to comment on these new varied licence applications which will also need to take account of revised risk assessment in the light of changes to SAC status ?

Clearly there is need for Angling Catchment Consultative to be a Consultee on matters where their members legal interests are impacted ?

### **Justification and need for varying the abstraction licence A, B, C & D**

**A - consumer demand.** Actual historic demand trend for earlier drought years 1996/7, 2003/04 against last year 2017/18 and current year (page 16 –UU Statement Report show full year demand dropping in the major Integrated zone from 2,000 MI/d (1996/97) to 1,700 (2017/18) and currently 1800 this year, in part due to leakage reduction. Forward demand forecasts illustrate NW demand has fallen significantly and will continue to be pegged by targeted consumer efficiency programmes. REDFA maintain demand year on year is falling and there is no justification for varying the licence.

**B - rainfall & groundwater supply.** 2018 is not an uncommon year, with many other "dry years" characterised by periods of two consecutive months of little or no rainfall. 2017 was not dissimilar with an eight week dry event when Ullswater lake reached a low of 144.86 metres on 13.07.17. We reached this level again this year on 22.07.18.

The unknown being the pattern of next 3 to 12 month total rainfall. Groundwater supplies contributing 10% of demand are more certain. Of greater concern to REDFA are the levels of permitted and unregulated abstraction from surface watercourses. These are unquantified and may increase substantially in dry periods causing river levels to diminish further. Fortunately the Ullswater watershed and short River Eamont is less effected by other licensed or unregulated abstraction.

REDFFA believe there is sufficient target headroom to allow reservoir supplies to restore in later months balanced by average rainfall.

**C - historic Ullswater abstraction and comparative river flow trends.** Historic UU abstraction at Ullswater is illustrated on Page 9 – Figure 2.3 of the EAR. These show annual abstraction volumes varying between recent years 2008/09 to 2017/18 of 2,000 MI to 28,000MI against a potential licence limit of 45,633 MI. On average UU utilise approx 25% of its available licence allocation even in what are considered to be years of extended dry periods.

In looking at River flows charts showing individual daily  $m^3$  flow volumes levels going back to 1970 the flows recorded at Pooley Bridge Gauging station indicate that current conditions are not uncommon and rainfall patterns and events have a capacity to restore low lake and reservoir levels over very short periods. This highlights again why even in dry and drought years when levels permit transfer from Ullswater the current licence allocation is not required.

**D - water conservation from leakage reduction & voluntary efficiency.** Leakage targets and reduction have flat lined since 2001/02 and at 450MI/day are a major contributory factor to wasted supply and limits reserves in reservoirs. The actual expenditure assigned to leakage control in operating cost terms is very small. A range of voluntary efficiency measures for customers is welcomed and dampening demand (metered supplies etc)

REDFA again make the point that these areas will drive down wastage and demand as climate change factors limit supply. These are the real options we should strive for and not take the easy option of dipping into the bank of scare resources.

#### **6 and 12 month abstraction modelling scenario`s**

Aquator<sup>2</sup> modelling of multiple weather pattern conditions (antecedent and forward) are illustrated with impacts confined to the 6 month period of the DP application. It is noted that should the drought continue or reoccur UU would apply for a new application with a new Environmental Assessment, so the potential for 12 month impact which is not unlikely has not been considered.

In this event the annual abstraction from Ullswater could far exceed recent year volumes, in which case this could result in a significant change to River Eamont and Eden flows.

#### **River SAC condition and Atlantic salmon stock trend analysis**

There are serious failings in presentation of this data that should be apparent to Regulators and Consultee`s

1. At no point in the 162 page Ricardo EA does it refer to the River Eden SAC as being in Unfavourable condition status for reason of its failing Atlantic salmon as a feature of the Eden and Tributaries SSSI
2. However it does refer on numerous occasions to impacts which are not considered to be of a magnitude which could impact on the Favourable condition status or the conservation objective of the SAC. In two of the four Drought Permit modelled scenarios B.2 and C the overall assessment show the magnitude to result in a Major adverse Impact to River Eamont flows. The definition of Major is a long term large scale (i.e. catchment change) to the physical environment.
3. The Environmental Assessment Report - Page 47 Features Assessment states the River Eden as one of the finest rivers in the UK for Atlantic salmon, again no reference to current condition status. It acknowledges there is no adult salmon data for the River Eamont to assess monthly migration. By inference there is no data available to ascertain minimum River Eamont flow levels or duration to trigger migratory movements of MSW component stock to this important spawning sub catchment.

*It is recognised that telemetry studies are required for this. No mitigation measures are prescribed for monitoring this failing feature of an Unfavourable SAC - at adult, juvenile or smolt lifestage.*

### **HRA claims of “negligible” impact and extent of impacted reach**

*The River Eamont`s gauged flows at Pooley Bridge directly below Ullswater outlet is a significant contributor to River Eden mainstem flows at its confluence at Waters Meet .*

*From preliminary examination of gauged flows at Pooley Bridge and the gauge station on the River Eden above the Waters Meet confluence at Temple Sowerby, Ullswater provides 30 to 50% of total River Eden flows. The River Eamont is also supplemented by additional flows from neighbouring River Lowther and Dacre beck. This is a significant factor which has not been examined and coupled with Ullswater low temperature reservoir effect is a major trigger inducing migratory runs on the lower and middle river . Ullswater and River Eamont flows provide short freshets to allow MSW fish to move into the cooler sanctuary of Ullswater during extended hot summer and autumn periods.*

*REDFA objects to the Drought Permit as the claim of negligible impact cannot be assessed with any accuracy and quite obviously has an impacted reach that extends well beyond the lower Eamont to a feature that is the cause of River Eden`s Unfavourable condition.*

### **Lack of evidence to support Environmental Assessment**

- In respect of fisheries and simply migratory species of Atlantic salmon and sea trout there is no evidence to properly assess the impacts of the Drought Permit\_ at JNCC life stage monitoring of juveniles, smolts or adults.*
- No studies or assessment have been of minimum river flows to facilitate or induce migrations through this important sub catchment for MSW stocks*
- No analysis has been made in this report of significant changes in recent years to MSW component stocks and their migration timing that is impeded by low flows in the River Eamont.*
- Monthly Corby Weir count data for years 2000 – 2015 is depicted and acknowledged to be Not species specific representing counts of salmon, sea trout, brown trout, river lamprey etc. The counter efficiency is described as “Validation work suggests that a minimum of 2.5% of fish are missed by the counter (validated at low flows)”. The inclusion of this data is questioned and we note no reference is made that REDFA collated rod catch data has been used in recent years to provide formal compliance estimates of spawning egg deposition due to inaccurate Rod licence reported data.*
- Table 9.1 Page 71 EAR refers to Summary of Impacts from DP re Implementation Against conservation Objectives for the SAC & SSSI. Again no reference to failing and unfavourable SAC status, but does require minimum Biological acceptable levels of Atlantic salmon to be met 4 years out of 5 at a sub catchment level. The report states that NO impacts to Conservation objectives are anticipated. REDFA would like to know how is this conclusion is arrived at given the SAC stocks are failing and cannot be assessed in the sub catchment.*

*REDFA object to the Ullswater DP application as it fails to identify impact to designated features due to lack of data*

## **Adopting Precautionary principles for an “Unfavourable” SAC**

*The EAR illustrates numerous modelled scenarios of combinations of pre antecedent dry weather patterns leading to a Drought Order application, presenting these as a range of impacts, following DP measures being applied. These combinations are difficult to assimilate, but categorised as conditions A, B.1, B.2, and C with ranges of Impact magnitude described as Major, Moderate, Minor or Negligible.*

*Page 60 summary of Impact Assessment describe scenarios A & B.1 to be Negligible, whilst B.2 & C of minor impact to several features associated with the River Eden SAC and SSSI. Further that these minor impacts are not considered to be of a magnitude which could impact on the favourable condition status or the Conservation objectives of the SAC.*

*Our objection is that Appendix B Page 36 – Table 6 which summaries the likely impacts of the Flow/level Regime due to the DP clearly states that for B,2 & C modelled conditions the overall assessment would actually be a Major adverse impact on River flow, not Minor impacts.*

*It is quite clear that whilst No data is available to assess impacts to migratory adult salmon that are the qualifying feature that is assessed as failing the SSSI and causing unfavourable SAC condition a precautionary approach must be adopted to introducing DP measures that can have a Major adverse impact on flows. Further, that no assessment and studies have determined what is a minimum Eamont HOF that will allow migration in what will be critical and extended warm weather and low water periods.*

*REDFA objects to the application on the grounds that these measures are designed to take advantage of lake levels above a much lowered River Eamont HOF to abstract and transfer water to Haweswater.*

### **Inclusion of Mitigation measures**

*The listed mitigation measures reflect understated impact or recognition of a failing feature of the SSSI and SAC. For Atlantic salmon alone the page 62 & 63 EAR measures as a minimum would expect to identify Monitoring during the DP of \* daily lake levels and flows \* abstraction volumes \* fish movements and component classes \* water temp \* studies of juveniles/smolts/adult populations.*

*REDFA object to the absence of basic management of key monitored features to assess further DP impacts which should be clearly built into the Environmental Management Plan.*

### **River HOF, lake levels, operational protocols and visible data reporting**

*The Drought Permit application calls for halving of the current summer (May to October) period HOF condition of 195MI/d flow for River Eamont before abstraction can take place to 95MI/d at a lake level of 145.05m. The UU Statement refers to HOF this as 144.8m.*

*The 12 month abstraction limit of 45,633 MI varied to 66,553 MI over a 6 month DP period and daily limits of 363 MI (current maximum daily limit).*

*The Environment Agency & Natural England advisers in the project Steering group raised a number of concerns re management of prescribed HOF.*

*Our investigations of lake level reference points and impact of defined HOF bear out these concerns.*

*It is not clear how the 95 HOF was derived. It appears that this was governed by the physical cut off level at which no water reaches the Gale bay pumping station, without regard to any environmental considerations.*

*A number of questions remain over Ullswater abstraction :-*

- 1. REDFA has surveyed the lake shore and lake bed and cannot find a crest weir lake inlet that limits the abstraction at 145.05m*
- 2. What common lake level reference point can be used that is visible to stakeholders ?*
- 3. Is 363 MI/d the max 24 hour output of the gale Bay pumps ?*
- 4. Are daily records maintained of abstraction volumes and corresponding lake and River Eamont flows and visible to regulators and public ?*
- 5. The current yearly HOF by month conditions would be improved with corresponding and agreed lake level reference values.*

*The proposed DP conditions clearly provide the opportunity for UU to transfer from Ullswater at levels above 95 MI/d and in doing so potentially maintain lake levels at much suppressed levels and flows than natural conditions. REDFA objects on the grounds that 95MI/d River flows over long period do not provide the safeguards that are required for this SAC & SSSI.*

### ***Conclusion - Exploiting a natural resource***

*Page ii of the EAR states*

*The Eden catchment is important for nature conservation, and the river is designated as a Special Area of Conservation (SAC) and Site of Special Scientific Interest (SSSI). Consideration has, therefore, been given to the potential impacts of drought permit implementation on these statutory designated sites.*

*The assessment also considers how implementation of the drought permit may affect the environment in combination with the effects of existing licences, consents and plans in line with the requirements of the Conservation of Habitats and Species Regulations 2017) and the Council Directive 92/43/EEC of 21 May 1992 (Habitats Directive).*

*For reasons stated in REDFA`s objections re :-*

*Lack of Assessment data, accuracy of Impact assessment, absence of appropriate statement of current SAC condition status and features, absence of basic mitigation and monitoring measures, we are brought to the conclusion that the River Eden with its Unfavourable SAC status and failing Atlantic salmon SSSI feature will in all likelihood remain so.*

*The EAR is framed on incorrect Permit Order details Page iv, without reference to the 6 month licence limit of 66.553 MI and the failure to include reference or consideration of the SAC status and condition of Atlantic salmon is major oversight.*

*For these reasons we object to the drought Permit application and conclusion that there will be Negligible impact to Ullswater lake and Negligible or Minor impact to the River Eamont SSSI and river Eden SAC and ask that the application is withdrawn or a full reassessment of the Permit Order undertaken.*

## **REDFA recommendations**

### ***Licence abstraction conditions & River Eamont HOF***

*Maintain the current abstraction conditions which provide some safeguards and also opportunity to transfer at levels that historically have not been utilised.*

*95 Ml/d HOF appears to have no environmental linkage. Without a specific assessment of this river flow on impacted species it must not be deployed.*

### ***Mitigation and monitoring measures***

*A range of appropriate mitigation and monitoring measures have been identified in the section – Inclusion of Mitigation measures.*

### ***Suggested visible operational and data reporting protocols***

*A number of suggestions have been made regarding agreeing a visible lake reference datum point and reporting daily/monthly and yearly abstractions and continuous lake levels & river flows.*

*Thank you for the opportunity to make this objection and accompanying suggestions.*

*With regards*

*Mike Ashwin*

*Secretary - REDFA River Eden & District Fisheries Association*

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