

## **STRATEGIC REGIONAL WATER RESOURCES SOLUTIONS: GATE 2 DRAFT DECISION**

**ON SOUTH EAST STRATEGIC RESERVOIR (SESR), 30<sup>th</sup> March 2023.**

**CLOSING DATE FOR PUBLIC CONSULTATION, 11<sup>th</sup> May 2023.**

**SUBMISSION BY EAST HENDRED PARISH COUNCIL (EHPC), 11th May 2023.**

### **1. EXECUTIVE SUMMARY.**

The EHPC's response is summarised in The Guardian Newspaper article, 22<sup>nd</sup> April 2023, titled "Lake or Mistake? The row over water firms, & Abingdon's new super-reservoir." (see Appendix 1)

- 1.1 The need for the reservoir is not proven against alternative options, with Ofwat identifying that Thames Water/Affinity's timing of the Severn Thames Transfer, (post 2050), is inconsistent with the Western Regional Plans & Severn management plans (construction ready by 2028), in its draft Gate 2 decision.
  - 1.2 The scale of the reservoir, c. 1,750 hectares (7 kms x 4 kms) in area & 35m high.
  - 1.3 Its feasibility & safety.
  - 1.4 Its environmental impact, esp. on the AONB, will not be assessed until 2026.
  - 1.5 Its cumulative impact on climate change when added to other new infrastructures.
  - 1.6 The lack of engagement with residents, County, District & Parish Councils on alternative options after May 2023, & in the absence of an EIA until a DSO submission in 2026.
  - 1.7 It has not been demonstrated to be the best option compared to the STT Transfer.
2. It is concluded that an Ofwat decision on SERSO proceeding to Gate 3 should be deferred until Dec 2023, as not demonstrably the best option, by adding the above matters to the actions required in Appendix A of the draft Ofwat Gate 2 decision.

### **3 My Qualifications: [redacted].**

**My Experience in Population Projections & Infrastructure Projects in Local Govt, at Halcrows, Consulting Engineers & Barton Willmore, Town Planning Consultants.**

#### **A. Regional & Local Plan Examinations**

South East Plan  
East Midlands Plan  
Milton Keynes  
Aylesbury  
Vale of White Horse  
South Oxfordshire  
Tewkesbury  
Leeds, Bradford, Barnsley, Rotherham  
Using Anglia Ruskin University population/household projections (Prof. Dave King)

#### **B. Infrastructure Projects**

Third London Airport Royal Commission  
London Docklands & Canary Wharf  
Tyne & Wear Development Corporation  
Sheffield Dev. Corp.  
M1 Motorway, east of Leeds  
River Thames Crossing of DLR to Lewisham  
Sheffield Supertram  
Swindon Town Expansion

### 3. The need for the reservoir, & whether its timing is consistent with other Regional Plans & management plans. (see Appendix 2)

3.1 The need & timing of SESRO has not been justified by Thames Water/Affinity, because Ofwat's Gate 2 draft decision identifies an inconsistency with the Western Regional Plan & Severn Management Plan proposing that the Severn to Thames Transfer will be construction ready by 2028. Thames Water propose construction after 2050, if required.

3.2 **There is less need for a reservoir now than in 2010**, when a need was not found to be justified by the Appeal Planning Inspector. There is no breakdown by administrative area to allow a comparison with ONS published projections. They do not comply with the 2021 National Planning Policy Framework (NPPF), paragraph 60, on "Assessing Housing Needs" using the Standard Method, unless an alternative approach is used which reflects current & future demographic trends, i.e. the ONS 2018-based population projections. The Levelling Up Bill proposes to remove the Standard Method. It is unclear how the affordability adjustment to ONS projections affects water demand.

#### 3.3 A Comparison of ONS 2018 & 2012-based Population Projections 2025-35:

	2018-based Pop.	2012-based Pop.	Reduction
For London	+300,000 (+3%)	+800,000 (+9%)	-500,000

3.4 Many adopted Development Plans 2011-31, e.g. Oxfordshire, are not based on the Standard Method but on growth trends between the 2001 to 2011 Census & superseded 2011-14-based population projections. These estimated +800,000 pop. (+9%) for London. Even the Standard Method is based on superseded 2014-based projections.

3.5 Thames Water states it has "confidence in its 2025-35 projection," without stating what it's population projection is!

#### **The EHPC response is:**

3.6 There is insufficient robust evidence for the population projections for 2025-35, or 2050.

3.7 The 2025-2050 forecasts range from +420,000 to +5 million population. There is no robust evidence to support the preferred forecast being close to the largest one.

3.8 For example, c.70% of the population growth is due to an ageing population, but there is no assessment of the water demand from a doubling of pensioner households, compared to a declining number of family households.

3.9 A decline in population is forecast in urban areas, e.g. Oxford, due to an insufficient housing land supply.

3.10 Recent House Building rates are well below development plan estimates, so their out-of-date 5-year housing land forecasts of house completions will not be achieved.

3.11 Thames Water's estimated 200 ml/day population growth in demand for water 2025-2050 is an over-estimate, because it has not taken into account of these factors.

## **4 The Scale of the Reservoir.**

### **4.1 The scale of the reservoir is Massive.**

The large scale of the SESRO is demonstrated by Schedule 1 of the Infrastructure Planning (EIA) Regulations 2017. Schedule 1.15 states that dams enclosing more than 10 million cubic metres amounts to a Schedule 1 development, requiring an EIA. As SESRO is 10 to 15 times the 10 million cubic metre level, it is of an exceptional size. It's capacity is between the capacity of Keilder (199M cu.m.) & Rutland Water (124M cu.m.) reservoirs, the two biggest in the UK.

4.2 Its total area would be c.17 million sq.m (1,750 hectares), with the reservoir forming 6-7 million sq.m. (150M cu.m. divided by 20-25m depth). Keilder & Rutland Water each have a surface area of c.10 million sq.m.

4.3 Its size would equal that of Abingdon Market Town, & its height that of closely-sited 10 storey blocks of flats, more in keeping with the density & height of development at Kowloon, Hong Kong, than the Thames Valley.

4.4 Its Massive scale demonstrates that SESRO would have a significant environmental impact, on account of its size.

### **4.5 Its shape is an Alien & Incongruous feature in the countryside.**

Its flat top & steep sides would be an alien & incongruous feature in the countryside. The sculptured contours of the chalk landscape of the White Horse at Uffington, the Devils Cauldron at Letcombe Regis, the escarpment at Scutchamers Knob car park at East Hendred, & The Whittenham Clumps, are rounded landscapes with long distance views across the Thames Valley, often topped by clumps of trees, (AONB Board Reports)

### **4.6 Its setting is untypical of that of other rural reservoirs.**

Reservoirs such as at Chew Magna or Roadford, those in the Brecon Beacons or Lake District, are set within the landscape. The substantial areas around the reservoir provide lakeside views, wetlands, nature reserves, picnic areas, woodland planting, footpaths & bridleways around the lake & other mainly land-based recreational facilities. The dam around SESRO will be seen as a man-made feature more commonly seen adjoining an urban area, such as at the Queen Mother & Wraybury reservoirs adjoining Slough, Heathrow & Staines, which do not provide a similar setting or range of recreational facilities.

### **4.7 Its adverse impact on highly sensitive Long-Distance views.**

4.8 Government Guidance on the setting of AONBs is given in its NPPF & Planning Practice Guidance. It states that development within these settings will need to take these impacts into account. There is no evidence that demonstrates how the location, scale, long-distance views or setting of SESRO has been taken into account. Guidance states:

#### **4.9 How should development within the setting of National Parks, the Broads and Areas of Outstanding Natural Beauty be dealt with?**

Land within the setting of these areas often makes an important contribution to maintaining their natural beauty, and where poorly located or designed development can do significant harm. This is especially the case where long views from or to the designated landscape are identified as important, or where the landscape character of land within and adjoining the designated area is complementary. Development within the settings of these areas will therefore need sensitive handling that takes these potential impacts into account.

Paragraph: 042 Reference ID: 8-042-20190721

Revision date: 21 07 2019

4.10 In this case, Long-distance views from designated landscapes (e.g. AONBs) are important, because the character of the land adjoining it, where SESRO is located, is complementary to the AONB.

4.11 These long-distance views attract visiting walkers, horse riders, mountain & road from across the UK.

4.6 The reservoir would be visible for a time of 2-5 hours, whilst visitors are on all-day walks & cycle rides within the Thames Valley to The AONB & Corallian Ridge.

4.7 Its impact on long-distance views across the Thames Valley between the north-facing escarpment of the AONB/National Trail (80 miles long) & the Corallian Ridge between Farringdon & Oxford, would adversely affect a key characteristic of Outstanding Natural Beauty in the AONB.

4.12 Over a distance of c.32 kilometres (20 miles) from The White Horse to the M40 Motorway at Stokenchurch, there are long-distance views from the North Wessex Downs AONB across the Thames Valley, in the middle of which SESRO is located.

#### **4.13 Omissions in The Affinity/Jacobs Landscape & Visual Appraisal.**

**The massive scale of the reservoir is not identified in the Appraisal**

**Its shape, a flat top & steep sides, are not recognised**

**Important long-distance views are specifically omitted, (excluding views 10km+).**

4.14 Scarp, Landscape Architects, have identified that the GLVIA, para 6.38, in Affinity Doc B2, notes that the magnitude of visual effects needs to be taken into account, & the degree of contrast with existing landscape characteristics. These are not fully reflected in Table 6.8 on the landscape & visual impact of SESRO.

Colvin & Moggridge, Landscape Architects, has previously identified its scale & alien shape.

- 4.15 No significant difference in impact is identified in the Terrestrial Environmental Appraisal, whatever the size of the reservoir (from 75 to 150 Million cu.m.).
- 4.16 There is no comparison with any alternative option to a reservoir, e.g. the Severn to Thames Transfer.
- 4.17 Affinity's SERSO Report B2 Chapter 8, para 8.111 states that:

*"Therefore, the potential effects posed by the alternative options (75 Million cu.m) are similar to those of the largest SERSO option (150 Million cu.m)."*

- 4.18 The loss of 16,456 hectares of agricultural land, Table 8.6, for the largest option cannot be mitigated. No figure is given for the alternative smallest option, or for the Severn to Thames Transfer.
- 4.19 The supporting information does not begin to assess the implications of its scale, shape, long distance views, or setting.**

#### **4.20**

### **5 Feasibility & safety**

- 5.1 The Times Article titled "Dam Silly" dated 23<sup>rd</sup> April 2023, gives The Times view on reservoir safety.
- 5.2 It noted that hundreds of people were evacuated when the Toddbrook dam collapsed in 2019.
- 5.3 Two reservoirs have been waiting for repairs for 8 years.
- 5.4 Two million people at forty-eight reservoirs, deemed a risk to life if they collapse, are still in need of repairs.
- 5.5 In 2022, Prof. David Balmforth's Reservoir Review identified 4 reasons for improving safety: the Toddbrook incident, Climate change, Modernisation, & a shortage of reservoir engineers.
- 5.6 Large reservoirs close to urban areas, as at SERSO create a Risk to Life, not associated with Transfer schemes. See evidence from GARD.

### **6 The absence of an Environmental Impact Assessments until 2026.**

- 6.1 Impact of construction – Highways England has issued a holding objection on new development at Harwell Campus due to lack of capacity of A34 junctions at Abingdon. A traffic modelling exercise is underway.
- 6.2 The Highways Authority accept that A417 junctions at East Hendred are at capacity.
- 6.3 There are planning commitments for some 10,000 additional houses in the Vale.
- 6.4 Thames Water's proposals to divert traffic onto the A417 from the closure of the East Hanney to Steventon Road, is ill-considered.
- 6.5 The Highway Authority's 4<sup>th</sup> Local Transport Plan seeks to reduce traffic levels by 25%.
- 6.6 My transport planning qualifications & experience indicate a conflict between the SERSO proposals for construction-generated traffic & the Local Transport Plan.
- 6.7 Environmental Impact – There is a Legal requirement for an EIA under Reg 10 of Infrastructure Planning (EIA) Regs 2017.
- 6.8 The SERSO Doc G, para 6.9 is 1<sup>st</sup> reference to an EIA. It only refers to a Scoping Report to be prepared in 2024.

- 6.9 It states that there would be no risk to SERSO proceeding on the basis of an unwritten Scoping Report, let alone the completion of an EIA, not programmed until 2026, when the DSO is submitted.
- 6.10 There is no mention of alternative options being assessed, a legal requirement of EIAs, based on the High Court decision on the Stonehenge tunnel, (see Appendix 3).
- 6.11 The SERSO Report G, para 6.9 states: *“The survey findings will facilitate the drafting of an EIA Scoping Report, through which TW&AW will apply to the Secretary of State for an EIA scoping opinion under Regulation 10 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017. The environmental information provided will promote accurate scoping.”* (See my earlier submission to Ofwat & Guardian article).
- 6.12 The only reference to a supporting environmental impact assessment is via Ofwat’s reference in its draft Gate 2 decision, to find it on the Affinity website. Scarp Landscape, Landscape Architects, has identified that the Landscape Appraisal methodology only considers *“a complete or very substantial change in the view”* to have a large effect. It ignores the scale of the development, its alien & incongruous form, and the loss of important long-distance viewpoints in the AONB. These are from the White Horse, Uffington to Didcot to the west, to Blewbury Down, to the Corallian ridge between Faringdon & Oxford, to the north.
- 6.13 It recognises the Sensitive views from the Ridgeway & the Ginge and East Hendred Plain, to the south across to Faringdon & Oxford, to the north, without identifying the scale or timing of the visual impact of the reservoir.
- 6.14 Its assessment is therefore not soundly based.**

## **7 The Cumulative impact on climate change**

- 7.1 [redacted] for Oxfordshire County Council, The Vale of White Horse & South Oxfordshire District Councils, are quoted in the Guardian article (Appendix 1) as saying that the reservoir will prevent their Councils from meeting their Climate Change targets for 15 years.

Doc G para 9.8 on Climate Change states that: *“The smaller the volume of storage, the larger the benefit due to the smaller reservoir footprint relative to the location of the SESRO option leaving a greater proportion available for enhancement. The 75Mm<sup>3</sup> SESRO option is predicted to provide the largest benefit and the largest SESRO option the lowest.”*

- 8 The proposed reservoir, SESRO, has not been demonstrated to be the best option, when compared to the Severn to Thames Transfer, STT. Thames Water has not engaged with Stakeholders, County, District, Parish, MPs.**

- 9 The National Infrastructure Commission report on Dry Rivers advocates a National Water network, through Transfers.**

- 10 Even on Affinity’s assessment, the largest option has the lowest Net Present Value Benefits, Doc G, Table 9.20, shows that: *“The effect of this is demonstrated in Table 9-20, where ecosystem service benefits generally improve with time. The large difference between the two larger volume options (-£230,000) and the two lower volume options (+£900,000) at year 15 is due to the recreational benefits commencing earlier.”***

**LIST OF APPENDICES.**

1. The Guardian on Abingdon Reservoir, 22 April 2023.

**Lake or mistake? The row over water firms, drought and Abingdon's new super-reservoir.**

2. East Hendred Parish Council submission to:

**DRAFT THAMES WATER RESOURCE MANAGEMENT PLAN 2024 EAST HENDRED PARISH COUNCIL'S RESPONSE, 20<sup>th</sup> MARCH 2023.**

3. East Hendred Parish Council submission to:

**STRATEGIC REGIONAL WATER RESOURCE SOLUTIONS GUIDANCE FOR RAPID GATE 2, & ITS IMPLICATIONS FOR THE GATE 2 SUBMISSION OF THE SOUTH EAST STRATEGIC RESERVOIR OPTION (SESRO), March 2022.**