

Friday 19th November 2021

By email- RAPDI/OFWAT.

County Councillor [REDACTED], Chair of Wantage and Farringdon locality group, Oxfordshire County Council

Dear Sir or Madam,

I am writing as a County Councillor on behalf of a two-member Wantage and Grove Division of Oxfordshire County Council which is within a very close distance of the proposed SESRO and will be severely impacted. I am also writing as the Chair of the Wantage and Farringdon locality group on behalf of:

Cllr [REDACTED] Hendreds & Harwell Division County Councillor (who has led this response on behalf of the locality group)

Cllr [REDACTED], Wantage and Grove Division

Cllr [REDACTED], Shrivenham Division

Cllr [REDACTED], Farringdon Division

We all supported the motion by Councillor [REDACTED] – 2nd November 2021 and fully back the submission from Councillor [REDACTED] below. We are all very seriously concerned about the proposed SESRO passing Gate 1 and spending of millions of pounds of spending investigating such a contentious scheme before answers and questions have been addressed properly and need for this scheme clearly demonstrated.

Friday 19th November 2021

By email - RAPID / OFWAT

Dear Sir or Madam,

As one of the three County Councillors in whose Division incorporates the proposed SESRO would be primarily constructed, I am writing to comment on the proposals from Thames Water.

My apologies for the length of this submission; there was so much to address in the supplied documents. Subsequently thanks to pressure amongst the concerned community groups, residents, elected members and local authority leaders, more data was released. What beggars belief is that it's taken pressure from us all in order to be flooded with information, a mere three weeks to digest it all, and yet there is still obvious gaps and questions. I am going to address the latest data download first and then my original response is below.

I would also like to make you aware of the recent motion raised at Oxfordshire County Council that was unanimously backed by a Cross Party vote of 52-0 which states;

Motion by Councillor [REDACTED] 2nd November 2021

"On 10 July 2018, Council passed a motion unanimously calling on the Leader of the Council to write to Thames Water, Defra, the Environment Agency and Ofwat, requesting that a second consultation on the proposed Oxfordshire Reservoir be undertaken due to incomplete information or errors on the information used to base their recommendations."

As information in the latest consultation remains incomplete, and what has been provided to support the proposal contains many errors, Council now confirms its position on the TW proposed Reservoir agreed at the Council meeting on the 10 July 2018 in that it remains opposed to the proposal, at least until the case for need has been clearly demonstrated by taking into account and answering the concerns of the whole scientific community.

To this end, Council will be including and taking full account of discussions with and opinions of all sources of independent scientific expertise including the Group Against Reservoir Development (GARD) when considering its response to Thames Water proposals."

Decision:

The Motion was carried by 52 votes to 0 (Unanimously).

To assist, given the length of the document, I have reached alongside colleagues for covering the main points below in bullet points:

Points from un-redacted Thames Water/Affinity report – released 1st November 2021

- In spite of devoting a chapter (chapter 2) to Landscape Impacts – there is no actual landscape impact assessment – it is all scene-setting.
- After such a long-time (25 years) of proposals, surely we should have more than this vapid wish list?
- This crucially misses the point that none of the proposed mitigation occurs until after construction is complete or almost complete. It ignores the 10-year construction period where no mitigation is in place
- As OCC elected member of the ANOB (area of outstanding beauty) - there is no mention of this, or the consequences / visual or physical on the landscape - it's all high level speculative- Landscape Visual Impact Assessment (LVIA) in Section 2.6, but this merely says it will follow the LVIA guidelines! Section 2.6 indicates that it will be a very skimpy investigation focusing on the view from the Area of Outstanding Natural Beauty (AONB – in this case The Downs
- In particular, there is no mention of any landscape design being included in the Gate 2 investigations and it sounds as though there won't be any. In that case, how can the visual impact be assessed at all and how will the cost implications be known?
- Annex B1 – figures – includes some small scale sketches of landscaping features around the reservoir, the details seem to have come from the map on page 106 a drawing dated possibly 2007. Given the new housing developments in the area this is unacceptable - new schematics need to be drawn up to show features now with current, pipeline and speculative developments locally!
- Page 9 of the Natural Capital Assessment report states that no landscape design has been undertaken at Gate 1. It refers to some details in a Mott MacDonald conceptual design report (CDR) 2021, but we have not seen this. I would respectfully ask that Oxfordshire County Council and GARD are sent a copy!
- The Natural Capital Assessment report then says that their Gate 2 assessment will use the 2021 Conceptual Design Report. We haven't seen such a report and respectfully ask for a copy to be sent forthwith
- There is no assessment of the dis-benefit of 10 years of the local population breathing excessive diesel fumes and its effect on their health and the NHS / local health provisions which are already at stretch point.
- There is further no assessment of the detrimental effect on pollution absorption of the loss of over 4 sq miles of vegetation.
- In Gate 2 there should be detailed investigations of traffic (including present traffic surveys and predicted traffic during construction), noise and air pollution impacts during construction, with design and costing of mitigation measures. As the Highways authority we will be insisting on data.
- Chapter 10 of the EAR report – “Other habitats and species”. The review makes reference to a number of ecological field studies carried out prior to 2009 - we need and insist on a proper terrestrial ecology impact assessment for Gate 2, including design and costing of mitigation measures. This detailed survey has to include how compensation for losses can be achieved locally, about which we are sceptical, rather than as some supposed ‘quid pro quo’ of trees planted elsewhere. We have expectation for Biodiversity net gain, based on baseline figures before development!
- The threat of algal growth in the reservoir and the impact of algal laden-reservoir releases is a major issue which has not been properly addressed by the EAR report. The further investigations should be included. Detailed algal modelling, both within the reservoir and in the River Thames is a requirement by us for GATE 2

Comments from original documents submitted, which some data has been restored there is much still missing!

- The SESRO submission has considerable redaction of environmental impacts for no apparent commercial reason. This makes public review extremely difficult.
- Many key WFD questions are not addressed and dismissed with “weasel words” attempting to imply that known and certain impacts to two significant watercourses are merely possible and aspirational benefits with no support are certain.
- Reliability of stochastic flow data - and wetter winters.
- The carbon cost calculation is held secret and the expressed number is highly implausible and appears to omit the embedded carbon cost of concrete (by an order of magnitude). Avoiding a massive amount of concrete would be an intractable issue with a project for the most massive bunds of concrete engaged on a reservoir in Europe
- All environmental impacts are certain (and underplayed) and all mitigation and expected benefits are aspirational (and overplayed) – and, in cases, mutually contradictory and potentially impossible to have occur simultaneously.
- The former un-mitigable red risk of flooding to Abingdon and surrounding villages from swamping a floodplain is now dismissed by a new modelling method that is not shared

- The financial costing and benefit calculation is, again, not shared other than a claimed figure. The sole detail provided (an assumption of 100% utilisation to justify the benefit) is expressly and repeatedly contradicted in the submission.
- The justification that “customers prefer reservoirs” is facile and, in any case, based on an attempted skewing of the responses by customers, who actually prefer leakage reduction and then water transfers, despite a deliberately biased question to try to avoid that.
- Comparison with the (much less investigated) Severn-Thames Transfer option point to the SESRO being far less cost-effective, far more costly, take far longer to provide, deliver far more in the way of certain environmental impact, have significantly greater running costs, provide far more water in a far more resilient way (and this would be new water to the water-stressed region), whilst the Severn-Thames Transfer would be far more likely to be delivered on time and budget.
- Allowing the SESRO to pass Gate 1 with all of the above in mind would be to guarantee waste of customer money and provide a form of justification to Thames Water which they would doubtless use to argue that the case for SESRO was established.

Opaque submission and much redaction of information

I have attempted to review the submission by Thames Water and encountered significant issues with the large quantity of redacted information within the environmental section of their submission. Given that the only reason for redaction should be commercial sensitivity, I fail to see any plausible argument for why multiple figures are redacted (Figure 2-1, Figure 2-2, Figure 2-3, Figure 2-4, Figure 2-5, Figure 2-6, which are the various options for reservoir layout), why the entire impact on the water environment is redacted, the details of which water bodies had high impacts were redacted... this is unacceptable. The commercial rationale for redacting the details of the specific waterways affected, the specifics of the Thames itself, and the specifics of the limitations of mitigation of environmental impact must be made clear and the opportunity for genuine public scrutiny offered.

For any project ostensibly put forward for public consultation to have public scrutiny so obviously and systematically blocked is alarming. For a mega-project with huge potential environmental impact, colossal costs, genuine permanent and unmitigable flood risks to local residents, and questionable benefits to have public scrutiny blocked is unacceptable.

Key WFD questions non addressed

From what *can* be made out, or from previous submissions, the following key questions remain:

- The flooding impact on local communities caused by covering so much of the floodplain was previously assessed as “Red” and not capable of being mitigated. Has this been taken into account? Or is it deemed acceptable to cause frequent floods in Abingdon and the surrounding villages?
- It is clear that at least one water course will have a high impact (“3”) regardless of whatever mitigation is attempted.
- A second one will have a “3” which “could” possibly be mitigated down to a “2” but no further. Details of the planned mitigation (or even whether the mitigation *would* be undertaken) are not given. There is a reason that “could” is regarded as a “weasel word” in project planning – it should be “will” or “will not,” together with a specific plan for the mitigation and the knock-on effects of that mitigation on other areas of risk, as well as cost and impact.

They admit that “*The scheme does have the potential for moderate adverse environmental effects*” and claim that “*adverse effects can be addressed through mitigation.*” It should be noted that the “potential” is a misleading word for a proposal that states that these adverse environmental effects **will** be incurred. The claim that these “can” be addressed through mitigation is, conversely, an overly confident claim for an aspiration that isn’t backed up with any plans or even outlines as to how they can be achieved. Swapping the sense (so that adverse environmental effects **will** be incurred which **may have the potential** to be mitigated) would be far more accurate.

This is repeated later in 5.8 and 5.9. The repeated and sustained attempts to imply these inescapable negative effects are uncertain whilst the aspirational mitigation is certain is tantamount to an indication of significant bias and potentially an attempt to mislead by omission.

Reliability of stochastic flow data

I understand that the assessment of deployable output and drought resilience of the strategic options has used daily river flow data modelled using 19,200 years (400 runs x 48 years) of stochastically generated weather data. I have four major concerns over the reliability of these data when comparing the performance of strategic resource options:

1. River flow data generated by hydrological modelling in a groundwater dominated catchment like the River Thames are highly unreliable. Even with a full regional groundwater model, modelling of daily river flows from a few decades of recorded weather data is inaccurate and time consuming. If the modelling has to cope with 19,200 years of

stochastically generated weather data, a much simpler rainfall/run-off model has to be used, introducing a lot more inaccuracy.

2. The 19,200 years of stochastically generated weather data have been based on just 48 years of recorded data from 1950 to 1997. Consequently, the historic basis of the stochastic data excludes the three most severe droughts of the last century for London's supplies (1921/22, 1933/34 and 1943/44, all extending deep into a second autumn/winter). There were no long duration droughts in 1950 to 1997 – the most severe drought in the period, 1975/76, was of only 16 months duration (May 1975 to September 1976). Therefore, the historic period used to generate the stochastic weather data contains no long duration droughts – the type of drought in which Abingdon reservoir has little resilience.
3. By excluding the 24 years since 1997, the base period for generating the stochastic weather does not cover the recent years of most rapid climate change. The 19,200 years of generated weather will not reflect the recent **changes in UK weather**, particularly the tendency for wetter winters which will have led to more summer flow in chalk streams, with potentially significant impacts on the deployable output of the different types of strategic resource options. Climate Change Experts are modelling on wetter seasons in winter, this needs to be factored and modelled into the equations.
4. One of the major benefits from the Severn to Thames transfer option stems from the geological differences between the Severn and Thames catchments. Much of the Thames catchment is in chalk and limestone, in which the high porosity absorbs rainfall and greatly slows recovery of river flows after droughts. Flows in the River Severn recover much faster in droughts, so can be used to bring relief when River Thames droughts extend deep into the autumn as they did in 1921 and 1934, the two most severe droughts of the past 100 years. The hydrological modelling used to generate 19,200 years of river flows in both the Severn and the Thames needs to accurately reflect this vital geological difference. We doubt that this is within the capability of the river flow/run-off modelling being used.
5. Several indicators in the latest [UK State of the Climate report](#) show that the UK's climate is becoming wetter. For example the highest rainfall totals over a five day period are 4% higher during the most recent decade (2008-2017) compared to 1961-1990. **Furthermore, the amount of rain from extremely wet days has increased by 17% when comparing the same time periods.** In addition, there is a slight increase in the longest sequence of consecutive wet days for the UK.

Carbon cost 'alarm'

One key area of concern is the carbon cost of the construction. I note that the Chartered Institution of Building Services Engineers, the Royal Academy of Engineering, and the Architects Journal (in a campaign backed by 14 Stirling Prize winners) have **all** raised the alarm over the amount of embedded carbon in new construction of cement, concrete, and steel.

After all, 8% of global CO2 emissions are from production and use of cement alone, and 35%-50% of the lifecycle carbon of new buildings is emitted during the construction phase. Accordingly, the environmental impact of the construction phase of any large project or construction cannot be ignored; **to do so would be a dereliction of duty.**

Thames Water admit that "SESRO has a high embodied carbon footprint (lots of excavation required)" but claim that "this can be mitigated by off-setting and implementation of low carbon construction techniques." 'Off setting' is not a suitable option for Oxfordshire, and with no methodology as to the Low Carbon Construction Techniques, this area is not answered nor does it have responsible planning within the reports.

The carbon cost calculation is not shown; merely a claimed number to be taken on trust.

We have undertaken a quick calculation to come up with the embedded carbon cost of the concrete alone (omitting all other carbon costs incurred in construction) assuming between 0.3-0.5 tonnes CO2e per cubic metre of concrete (most optimistic values found).

Given that the 'bundled' wall must be c. 10,000 metres in length, with an average height of over 25 metres, then every 1 metre width of the 'bundled' wall would indicate 75,000-125,000 tonnes CO2e.

Their estimate of a total of 352,081 tonnes would indicate that, if half the CO2 emissions were concrete and half from the HGV movements and other plant activity, the 'bundled' wall would have to be no more than 1.4 to 2.4 metres in width. This seems hugely implausible for a wall that would be holding back 150,000,000 tonnes of water (several times the weight of the entire town of Swindon with all its contents) and thus gives me considerable disquiet about what was or was not included in the CO2 calculation. My instincts would be that the wall would need to be an order of magnitude thicker at least, and thus the CO2 emissions calculation would be several times greater than shown.

Should, for example, the concrete required be 30m high, 10,000 m in length, and varying in width between 5m at the top and 75m at the bottom, it would require 12 million cubic metres of concrete, and incur 3,500,000 to 6,000,000 tonnes of CO2e for the concrete alone.

Although, for some reason, the carbon calculation has not been made available, it does imply that Thames Water may have neglected to add in the **embedded** carbon cost of the concrete. Which, for a reservoir based around massive concrete bunds, would be an alarming omission.

If Thames Water have included it and are estimating an average wall thickness of no more than 2.4 metres, I would be alarmed in a completely different sense, as structurally this would be inadequate for purpose.

Concrete adverse effects and aspirational benefits and mitigation

Following up on the earlier points, Thames Water repeat that "*All options have the potential for a significant impact on the WFD compliance of two water bodies in the River Ock catchment, which will require further investigation as part of Gate 2. All options could provide a net increase in terrestrial biodiversity units of over 10% and a positive change in natural capital value at the site*"

Once again, they use words such as "**potential for...**" **when the supporting documents make clear that it is not a potential – it is inescapable and not capable of mitigation.** One (redacted details) watercourse scores the maximum "3" for negative impact and this is noted as not capable of being mitigated. The second scores the maximum "3" and can only be mitigated to a still serious and unacceptable "2".

Conversely, the claim that "*could provide a net increase in terrestrial biodiversity units of over 10%*" is solely aspirational and, again, with not even a woolly idea of how this may be achieved. It is, however, "banked" as a benefit later on. They do claim that "*Habitat creation opportunities have been identified, but as design progresses refinements could include rewilding to create added value*" but, once again, have completely neglected to even indicate what these opportunities might be. Surely an indication, at least, would have helped? Especially if they claim to have done the work, but unaccountably not put it forwards.

They make clear their fallback plan, but claim that it is merely a potential (despite the documentation making it clear that it is a necessity): "*There are two watercourses in the reservoir footprint which may experience a deterioration of WFD status and there is the potential for a derogation to be required under Article 4.7 of the WFD in respect of these two waterbodies.*"

(Again the "may" for something they are clear is a "will" and a "potential" for something that will be necessary)

In Table 5 (the summary of environmental impacts), once again, all the negatives are concrete and will certainly be realised

(Damage to biodiversity during construction, damage to biodiversity during operation, damage to population and human health during construction, damage to soil during construction, damage to air during construction, damage to cultural heritage during construction (Listed buildings and scheduled monuments in close proximity to each of the reservoir options and the reservoir boundaries are also immediately adjacent to a listed building. There is therefore potential for the setting of these historic assets to be affected during the construction phase. There is a high likelihood of encountering previously undiscovered archaeological assets as a result of construction activities), and damage to landscape during construction.

Whilst I fully agree that "*The construction of the reservoir would result in landscape and visual impacts*", the claim that "*mitigation measures will be implemented to avoid, reduce and minimise loss or disturbance*" is once again fairly woolly. The capability to hide a 150 million cubic metre water feature stretching over several hundred hectares (occupying a similar size to Heathrow Airport) would be impressive and might deserve to be shared with airport operators.

These certain adverse effects rate as "moderate", whilst the purely aspirational intent to deliver a biodiversity net gain rates as "major beneficial." As does the claim of provision of recreation and education facilities (which are later noted may be impossible due to potential conflict with Invasive Non-Native Species (INNS) Risk Assessment, which notes that to reduce the risk to low, all recreational activities must be removed in full).

This would also remove the Material Assets "Moderate Beneficial" element. And the Landscape one also requires an aspirational "we'll make it look really nice, honest," claim, which is suspect at best.

The document even goes on to claim at para 5.16 that "*All options demonstrate an overall positive change in natural capital value, although there will be lag after construction to realise this gain. This is largely due to the significant increase in recreation value at the site,*" is obviously unsupportable. All options are accompanied by an aspirational claim of improvement and a promise of recreational facilities which, by this document, may not be possible to provide.

Flood concerns

Previous iterations of this scheme (of which there have been several over the past 25 years) have had significant issues with flood risk increase to Abingdon and surrounding villages. This is due to the construction being made on a flood plain. They now, however, claim that "*The update of the hydraulic model (from 1D to a 1D-2D) has demonstrated that the construction of SESRO results in a slight reduction in flood risk to Abingdon rather than the previously identified increase in flood risk. This is because an increased accuracy in the modelling technique and the fact that rain falling on the reservoir surface is effectively removed from the River Ock catchment.*"

This statement would be more reassuring had they not repeatedly redacted environmental impact information with no apparent justifiable rationale. And if they had provided the modelling output in any sense rather than hoping for us to

take them at their word (something that the other errors, inconsistencies, and misleading statements within this document do not encourage).

"However, replacement flood storage has been retained in line with Environment Agency guidance for development. The area required for level-for-level replacement floodplain storage (RFS) has been revisited based on the updated flood risk model. The assessment has increased confidence that there is sufficient space on the west side of SESRO for relatively shallow excavation to provide sufficient RFS. However, further development of the design will be required in consultation with geomorphologists and ecologists to confirm this conclusion"

Given the importance, independent consultation should be carried out prior to Gate 1. It would not be lengthy or costly and it is surprising that this was not carried out in advance, given the red risk status in the past.

Costing, technical need, and issues

They have, as with the carbon calculation, failed to provide their working on calculation of the CAPEX and OPEX, other than to note that *"the economic Net Present Value (NPV) of the single-phase options is between £1.42Bn and £1.17Bn"* [Based upon a nominal 100% utilisation of the scheme].

However, they also state at Table 7 that *"For much of the time, SESRO would remain full, with abstractions and discharges made to meet sweetening flow requirements only. As such, at the beginning of a dry period, there is an expectation that SESRO would be full."*

This implies that 100% utilisation is not only massively unlikely, but specifically planned not to be the case, so why make a calculation based on 100% utilisation? It will inevitably be misleading, and knowingly so. This does not fill me with confidence in the reliability of the remaining calculation.

This does lead to the issue later on *"While there will be natural circulation of water within the reservoir, there is a risk that poor mixing could result in water quality deterioration and algae growth. The jetting of water into the reservoir (described above) will enhance the natural circulation of reservoir water and aid mixing."*

Should the reservoir typically be full, there would be no further abstraction of water from the Thames and this solution would be unavailable by design. This would be exacerbated by the fact that the water is expected to only be needed during times of drought (when no abstraction of water from the Thames would even be possible), so the maximum risk of algae would coincide with the maximum need.

It's even noted earlier in Table 5 whilst being used as justification for "moderate beneficial" Climate Factors: *"The reservoir stores water for use in dry years and therefore pumping into the reservoir (with consequent power / carbon use) is an intermittent activity."*

This is seriously inconsistent.

In the justification for the SESRO, it is claimed that the maximum output in a 1 in 500 year drought is 293 Ml/d but it is noted that this calculation is *"simple"* and will *"potentially double-count benefits"*

It's notable that this is comparable to the water savings that would be achieved by reducing their poor leakage rates to comparable with those of Anglian Water (300Ml/day would be saved).

Another key justification is shown in Table 2, early on: *"It is expected that SESRO will provide a source of raw water for other regional transfers (e.g. the Thames to Affinity transfer SRO). The current transfer options rely upon a new source of raw water into the fluvial Thames or one of the London effluent re-use schemes."*

If there is to be a new source of water (because this scheme does not provide any new water), what is the need for the reservoir in the first place? The plausible sources (for new water Severn Water, United Utilities) have ample reservoir storage capacity. If there is *not* to be such a source of new water, regional transfers will not be possible and this expectation will be baseless.

A key justification does seem to be that "customers prefer reservoirs." Which, frankly, is not what a billion-pound-plus mega-project that would affect tens of thousands of people and take over a decade, incurring a massive carbon cost, should be based upon. Even so, in their document describing customer engagement ("Customer Preferences to Inform Long-term Water Resource Planning"), the majority of comments still preferred the Severn-Thames water transfer:

"It makes much more sense looking at this, it's like the arteries of England. The body sends blood to where it needs to be. I live in London, but I've got family in Wales and they obviously have an abundance of water there, so it makes sense."

Nevertheless, they claim that *"Situations where large numbers of customer would be dependent on water being transferred into an area from another company region in the long-term was a major concern"* I've seen the question they used to elicit the response:

"Do you favour water transfers, bearing in mind these would mainly come from a devolved Welsh Government region?"

(Loaded questions such as these would be unacceptable for public opinion polling)

They even had to admit that "*Participants felt that a collaborative approach cannot be a reason for a company to lower its ambitions to reduce leaks or help customers save water.*" - which translates to: "First sort out your leaks, then assist customers in saving water, and then go for water transfers."

Comparison with Severn-Thames Transfer Scheme

In contrast with Thames Water's relentless attempts to push the reservoir scheme over 25 years, the Severn-Thames water transfer scheme (which would be quicker, less disruptive, cheaper, and would provide new water to the water-stressed South-East from the areas of the country where it is plentiful) has long been a neglected option. In their previous proposals, it had been pushed out to past 2050 and later (even 2080).

The fact that this would not provide a capital asset paid for by the consumer against which they could borrow capital sums may make the more cynical suspect an understandable and rational bias by Thames Water, when these other factors are borne in mind.

It does look as though, from the review of submission quality carried out by RAPID, that the work done on the Severn-Thames Transfer was possibly more perfunctory.

However, the comparative benefits still are inescapable:

- The use of the Cotswold Canal alone could provide 300MI/day to the Thames (greater than the greatest output from the largest SESRO – and without any double-counting). This is new water to the water-stressed South East. This could be scaled up to 500MI/day with all transfer options.
- The new water (with additional sources already identified clearly in case of concurrent lengthy drought) would certainly provide the required water in a drought, whilst climate change in the already water-stressed South East could preclude the SESRO alone being capable of supporting the demand (given no new water into the South East) over a 2-year-plus drought. All else being equal, this should be decisive.
- CAPEX is significantly cheaper (even bearing in mind the secretive nature of the calculations: £783m compared to £1,330m for comparable flow, with £81m OPEX compared to £91m. This is a CAPEX saving of half a billion (41% cheaper) and an OPEX saving of £10m per year. All else being equal, this should be decisive.
- Carbon cost is calculated at 198,423 tCO₂e versus 352,081 tCO₂e claimed for SESRO. With potentially omitted embedded carbon costs of concrete brought in, the difference would be hugely greater still. All else being equal, this would be decisive as well.
- Carbon costs of running are again opaque and would certainly be susceptible to the ongoing decarbonisation of the National Grid, so cannot be fairly compared at this time frame. Even if there was no further decarbonisation and the numbers given were accurate, then it would take a prolonged period for the carbon costs to balance – and, if carbon costs of embedded concrete were indeed missed (as seems inescapable), would never close.
- The Net Benefit would be £2,127,813 for the STT versus £1,766,284 for SESRO (remembering that the latter number is dependent upon a 100% utilisation, which is established to not be accurate). That is, 20% more valuable (and upwards), with a return on investment (assuming their numbers are reliable) of a factor of 2.7 versus a return of investment of a factor of 1.33. Again, this alone would be decisive with all else being equal.
- Biodiversity enhancement without needing significant new construction, the huge reduction in the areas of disruption, impact on the natural landscape, impact to cultural heritage, damage to soil and air, loss of residential and commercial properties, transport infrastructure and energy and community facilities, biodiversity impact, and loss of priority woodland habitats by following the transfer route for new water rather than the SESRO route would alone, all else being equal, be decisive.
- The time taken to construct the strategic water options is far less for the Severn-Thames Transfer – it could be provided within three or four years of the go ahead. In all large projects, shorter time scale projects are far more likely to be delivered on time and budget. In contrast, the SESRO would be over a decade and not planned to be delivered prior to 2040, and mega-projects with those timescales are extremely unlikely to be delivered on time or budget. Again, this alone would be decisive with all else being equal.

Overall

The elements in this document that highlight the swathes of omitted detail and aspirational absences in the Thames Water documents may be viewed as harsh. This would be fair for the Severn-Thames Transfer proposal, as it has genuinely only been seriously considered very recently. However, the SESRO has been a major focus for Thames Water since 1996 – a good 25 years.

Even when the SESRO was rejected by the Inspector at the public Inquiry in 2011 as not fit-for-purpose, not compliant with the Regulator's requirements, and noting that Thames Water had failed to investigate viable alternatives to the

reservoir or made essential environmental assessments, Thames Water has still been very much inclined towards the SESRO as a major commercial asset for the shareholders that would be paid for by the customers.

The fact that every single factor is so strongly pointing towards the Severn-Thames Transfer option over the SESRO coupled with the unacceptable secrecy and redaction of documents concerning the SESRO, the inconsistent and incoherent arguments for the SESRO, the massive risk and aspirational nature of all mitigation and many benefits of the SESRO, the blatantly biased language to dismiss known negatives of the SESRO as being merely potential and claim aspirational benefits as being certain, and the need to cause Thames Water to focus effort on a genuine development of the Severn-Thames Transfer option (rather than the danger of a purely token effort) point to an early down select. This would be the far cheaper, far less carbon emitting, far less environmentally impactful, far faster to deliver, and far more capable (in terms of flow, resilience, and provision of new water) option.

Continuing to pursue the SESRO with this in mind, and providing a form of justification to it by passing Gate 1 and allowing considerably more millions of pounds of spending could be contentious at best and should be avoided. I speak on behalf of the residents in my Division closely impacted by the potential of SESRO of Steventon, Rowstock, Harwell, East and West Hendred whom are all against the scheme in all its forms, and we demand another public enquiry into this proposal.

Yours faithfully,

Councillor 

(Hendreds & Harwell Division County Councillor)