



HOUSE OF COMMONS

LONDON SW1A 0AA

Dear Thames Water,

10th February 2012

Justine Greening MP - Thames Tunnel Phase 2 Consultation

Putney suffers from some of the worst sewage pollution in the whole of London due to the tidal flow and the curve in the River Thames, with 820,000 tonnes of untreated sewage being pumped directly along the Putney stretch of the Thames annually. The river is a cherished part of life in Putney, with a very popular river tow path, many rowing and sailing clubs along the river, as well as being the start of the University Boat Race. As a consequence, the Thames Tunnel is a very important project for London and my constituency. I believe we should be working to ensure the river is protected for residents today and future generations. I also want to see the project delivered in a way that takes care of our local environment and manages disruption to residents to a minimum.

There is a need to tackle the sewage overflow problem in the Thames now as it is clear the current sewage network is working near full capacity. I believe the Thames Tunnel offers the most viable sustainable long term solution to tackle the 39 million tonnes of sewage flushed into the River Thames each year, which is likely to increase in future years given the probability of wetter winters, more intense rainfall and greater climate variability in the UK.

Nevertheless, there are a number of concerns about how the project will affect my constituents locally. Since the phase one consultation I have been working hard with my community and Thames Water through public meetings and a residents working group I set up to engage in the development of this project. The majority of my constituents agree that there is a real need to tackle the sewage problem in the Thames, and their main concerns have been to ensure that a project to protect and enhance the river environment does not cause other excessive damage itself to our environment, local community or quality of life.

With regards to the phase two proposals, it is clear Thames Water has reflected key concerns about the originally proposed drive shaft at Barn Elms. I am pleased a number of significant changes have been made to the proposals to reduce the detrimental impact on our local sites and community with Barn Elms being dropped as a preferred site for the mains drive shaft. Broadly speaking my constituents feel the phase two proposals are a great improvement on the phase one proposals.

In addition to the comments I made in my phase one consultation response, I wanted to take this opportunity to highlight the views and concerns of my constituents in respect of the Thames Tunnel phase two proposals in more detail.

Barn Elms

In the phase one consultation Thames Water identified an area towards the southern edge of Barn Elms School Sports Centre playing fields as the preferred main tunnel drive shaft site and combine sewer overflow (CSO) site. I raised significant objections to this on behalf of my constituents



alongside many residents themselves. Public meetings I arranged on the issue were attended by hundreds of local residents. It remains my view that I do not think it is appropriate to use this greenfield land for one of the Tunnel's main drive shaft sites. The loss of such valued community greenfield amenity space during the lengthy construction period, and once construction is complete, is completely unacceptable, as well as the impact on local residents and our transport network.

My constituents and I therefore very much welcome Thames Water's decision to relocate the main tunnel drive shaft site from Barn Elms to a far more appropriate brownfield site. When taking into consideration the serious detrimental impact such a site would have on the Barn Elms playing fields, the neighbouring residents in Horne Way, and the Thames footpath, I feel this is the right decision.

As part of our local campaign to protect Barn Elms, I ask local residents to let me know why they love Barn Elms and I wanted to include the many responses I received with my consultation response. You will see from the cards just how much local residents value the playing fields at Barn Elms and the river tow path, as well as the wildlife and natural environment. Here are just a few of the reasons people love Barn Elms:

- "It is an oasis of green in the middle of the city. To destroy Barn Elms is a crime equal to allowing sewage to continue to flow into the Thames."
- "It is fun to play there and we do our school sports there. We could never find a better playing field!"
- "It is a sanctuary that is free. It is home to the oldest Plane tree in London, wild flowers, burrows, kingfishers and rare butterflies. It must be protected."

Additionally, Barn Elms has now been designated Metropolitan Open Land and a site of Special Scientific Interest in recognition of its importance. Local residents have also ensured its protection under the Queen Elizabeth II Fields in Trust initiative. I feel these comments in addition to the recognition given to Barn Elms empathise the need to protect our greenfield sites in London from development.

As part of the work of the Thames Tunnel working group I set up with local residents, we asked Captain S.T. Culshaw BSc, MPhil, FRICS, FIMarEST to work with us to undertake a survey on the impact the proposed main tunnel drive site at Barn Elms would have on the river Thames. His survey highlights the difficulties Thames Water would face using barges and tugs in such a recreational part of the river. He also highlights the difficulties faced with and care needed when berthing barges and the transit through Putney Bridge. Critically Captain S.T. Culshaw states that based on the anticipated size of barge needed to remove the spoil from Barn Elms, the length of the tow is in excess of the width of arch number three (Centre Arch), stating that for the tow to become beam on to the arch it is quite likely that both the tow and bridge could be damaged. Additionally, Captain S.T. Culshaw highlights that great care of the river bank must be taken, particularly where the bank has been strengthened with retention walls or piling. It is vital that serious examination is given to the bridge area and immediately downstream beyond St Mary's Church. Captain S.T. Culshaw's technical work highlights the serious risks that would arise on the river if Barn Elms was selected as the main tunnel drive site and further emphasises how logistically inappropriate this site is.

West Putney Storm Relief CSO

Thames Water still considers Barn Elms as the preferred site to intercept the West Putney Storm Relief CSO. The size of the site required in the southern corner of Barn Elms is significantly smaller than at phase one and the construction period has reduced to two and half years, reducing the



effects on local residents and the playing fields. Thames Water would no longer need to relocate the Scout Hut or divert the Thames Path.

I understand the need for a site in this location to intercept the West Putney Storm Relief CSO. Nevertheless I did want to highlight that some of my residents feel that this particular CSO is not polluting enough to warrant its connection to the Thames Tunnel. Thames Water has been monitoring the sewage outflow from the CSO in order to collect accurate data figures and it is very important that this continues so we can get a clearer picture of the levels of pollution from this CSO.

Whilst the proposals offer a shorter and less disruptive construction period which is an improvement, the site is still situated very close to residents at Horne Way and will still significantly impact on nearby properties both physically and in terms of noise & light pollution. I would urge Thames Water to continue to work with residents, particularly when agreeing the Code of Construction Practice for the site.

One key area of concern is the proposal to transport materials to and from the site via a temporary access road along the northern side of the Beverly Brook. Residents are rightly concerned that the access route will cause further loss of green space as well as increase the risk of vehicle accidents on the site by having a number of heavy goods vehicles driving around a busy recreational site where children are often playing. Many residents and the Council would prefer Thames Water to use the existing Queen Elizabeth Walk and create a temporary access road along the eastern end of the sports pitches. I urge Thames Water to strongly consider this option, especially as this is the preferred route for maintaining the site after construction.

Furthermore, residents would also like Thames Water to maximise the use of the river for transporting materials and spoil instead of lorries to minimise the impact on our already congested roads. Whilst taking into consideration the finding of Captain S.T. Culshaw survey, I urge Thames Water to further commit to using the river to transport materials and spoil from CSO sites. This is a very important issue in my constituency where the roads are already heavily congested.

Turning to the future use and design of the site after the completion of the construction work, the proposals show the CSO drop shaft concealed within a habitat wall and the interception structures, ventilation structures and control kiosk integrated into a single above ground structure concealed by a further habitat wall. I understand there are mixed feelings about the proposals for a habitat wall and there are concerns that such a design may encourage children to climb on the structure, especially if balls get caught inside. I think most residents feel the above ground structures should be designed in a way to blend in to the open grass environment, rather than stand out as a feature, such as grass mounds and screening from trees and shrubbery. I would strongly urge Thames Water to engage local residents to discuss the permanent look and long term use of the site to ensure it will not detract from the natural openness of the playing fields and is safe for the children who use the playing fields.

Putney Bridge Foreshore CSO

Thames Water still consider that Putney Bridge Foreshore upstream of Putney Bridge to be the preferred site, although a significant number of improvements have been made to the site. Residents support the proposal to move the site further west, away from Putney Bridge, to ensure the listed bridge and historic slipway are protected and to reduce the impact on residents at Kenilworth Court. Moving the site further west also allows Thames Water to minimise the footprint of the permanent works after construction.



Whilst the new location of the site does provide potential for more screening and is slightly further away from Kenilworth Court residents, there are still concerns regarding the impact of construction at this site both physically and in terms of noise & light pollution during the two and a half year construction period for this site. I urge Thames Water to work to reduce the impact of construction and where possible work to reduce the construction period which will be highly disruptive. I also encourage Thames Water to continue to work with Kenilworth Court residents to mitigate the impact of this site, particularly when agreeing the Code of Construction Practice for the site.

There is real concern over the number of traffic movements and the impact this will have on our local roads. Whilst we appreciate that Thames Water will use the river to transport the infill for the cofferdam fill on the foreshore, residents would like Thames Water to further commit to using the river to transport materials and spoil from CSO sites. This is a very important issue in my constituency, local residents have also raised concerns with me about construction traffic exacerbating congestion at this busy junction as well as along Embankment and Lower Richmond Road. Thames Water must ensure appropriate consideration has been given to the planning and execution of these works on our local road network.

A temporary slipway is proposed to be constructed for the duration of the CSO construction works to provide alternative access to the river during the construction period. There is concern that the proposed slipway is excessive in its design and construction for its need and I encourage Thames Water to seek an alternative simpler slipway that takes less time to construct. However, ensuring that this slipway is safe, secure and adequate to be used is critical as it will be used regularly by Chas Newens Marine as well as the emergency services. I would urge Thames Water to further consult with the users of the slipway to agree an appropriate design.

As Thames Water is aware Putney Foreshore is a very historic site at the very heart of Putney and any lasting above ground structures on the site will have a huge impact on the feel and character of Putney. With regards to the design of the site after construction, I would like to see the Victorian brickwork and rustic nature of this location preserved and designed into the proposed embankment extension after construction is completed on the site. I would also urge Thames Water to investigate designs to soften the look and feel of the embankment extension to ensure it looks and feels part of the embankment. The River tow path is very important for the local community and is well used. I would strongly urge Thames Water to further explore the possibility of placing the above ground structures in the vaults under Lower Richmond Road to reduce the visual impact they would have on this area of river frontage. Residents support the proposal to reduce the height and size of the ventilation columns, and incorporating the column for the interception chamber to Putney Bridge. I would encourage Thames Water to explore further possibilities for shielding or disguising the ventilation column for the drop shaft on the proposed promontory. I do believe this area could be a great public amenity space and really add to our river frontage but it is crucial Thames Water continue to engage local residents to discuss the permanent look and long term use of the site to ensure it will benefit local residents and enhance our river experience.

King George's Park CSO

King George's Park is still considered the preferred site to directly intercept the CSO, which runs beneath the northern part of the park. Since the phase one consultation Thames Water has re-assessed the sites from which to drive the Frogmore connection tunnel and King George's Park has now been identified as a reception site to the Frogmore connection tunnel, which minimises the construction impact on the park. I am pleased Thames Water reassessed the tunnelling strategy for the Frogmore connection tunnel and I support the decision to use the King George's Park site as a receptor site. As a result of phase one consultation feedback, the site has been reduced in size and



moved away from the historic park gates off Buckhold Road and mature trees in the park. Additionally, the height of the main ventilation column has been reduced from a potential 10m to up to 6m.

Residents have raised concerns with me regarding the impact of construction at this preferred site on the surrounding area both physically and in terms of noise & light pollution during the two year construction period predicted for this site. Residents would also like to ensure Thames Water works extremely hard to protect the trees in the park and minimise disruption and nuisance to park users and wildlife. I urge Thames Water to work to reduce the impact of construction and where possible work to reduce the construction period. I also encourage Thames Water to continue to work with local residents to mitigate the impact of this site as construction takes place, particularly when agreeing the Code of Construction Practice for the site.

Turning to the future use and design of the site after the completion of the construction work, many residents are understandably keen that the above ground structures should be designed in a way to blend into the park environment and that appropriate landscaping is designed into the site. Some concern has been raised in relation to the impact of the permanent structure on the existing flood storage and the possible requirement for compensatory flood storage and I would urge Thames Water to further investigate the potential impacts on flood storage in the park. I would strongly urge Thames Water to engage local residents more actively to discuss the permanent look and long term use of the site to reduce the visual impact of the completed site on the park and park users, and where possible not detract from residents' park experience.

Conclusion

The Thames Tunnel project will have a major impact on my community with three major sites in my constituency being affected. Residents are rightly concerned about the impact the Thames Tunnel will have on Beverly Brook, Putney Bridge Foreshore and King George's Park sites.

I am pleased Thames Water has acknowledged this and sensibly engaged with my community, listening to our concerns and working very hard with local residents on some of our concerns about the local sites, resulting in improved proposals locally. I welcome the changes that have been made to the proposals for our local sites which I feel reduce the detrimental impact of the Thames Tunnel on our community. I strongly support Thames Water's decision to relocate the main tunnel drive shaft site from Barn Elms playing fields to a far more appropriate brownfield site. I believe it is incredibly important to protect our green open spaces in London wherever possible and I am pleased Thames Water has recognised this and worked to find an alternative brownfield site.

As I stated in my phase one consultation response, we do need to address the problem of sewage which the Thames Tunnel is intended to tackle, but we also need to ensure the sites Thames Water take forward make sense for us locally and work within our existing environment. It is vital that Thames Water seriously consider the concerns I have outlined above and the concerns raised by residents during this consultation period as the project is developed.

Regards,

**Rt Hon Justine Greening MP
Putney, Roehampton & Southfields**

C.T.S. Marine Consultants Ltd

57 Wilmington Ave

Chiswick

London W4 3HA

Telephone +44 (0) 20 8 994 8741

Mobile +44 (0) 7718390325

E-mail info@ctsmarine.co.uk

www.ctsmarine.co.uk

Justine Greening MP

Member of Parliament for Putney, Roehampton and Southfields

House of Commons

London, SW1A 0AA

Subject :-Thames Tunnel Project - preliminary review of river activities - Barn Elms and Putney Bridge Areas

The following has been researched this far:

1. **Tides** - Hourly tide heights for a 2 week period in September 2011, which includes a datum tide (lowest possible tide) on the 29th, and is a good representation of a Spring / Neap cycle.
2. **Putney Bridge** - With the exception of high water springs the air gap is sufficient to allow most tugs working on the River to pass safely under Putney Bridge using arch number three only.
3. **Recreation** - The local sailing clubs use the river approximately 1 to 1½ hours before high water at the weekends and occasionally on Mondays and Wednesdays. It is understood that there are some 4300 rowing club members in the Putney area. However it is not known how many rowers and scullers are on the river at any one time or 1/1½ hours before high water.

It is appears that approximately 1 to 1½ hours before and after high water the Putney and Barn Elms Reach may be congested area with recreation users.

It should be noted that it is likely that river construction traffic movements would be at its peak at the above times, ie movement of spoils out and materials in to the site.

4. **Weather conditions** - Although Putney Bridge is some 24 nautical miles upstream from Queen Elizabeth II Bridge the Putney and Barn Elms Reach may not be classed as a totally benign location.

It has been reported that the main prevailing wind is from the South West through West to North West which is approximately from upstream towards Putney Bridge and across the river towards Bishops Park area.

Although the average expected wind speed ranges from 12 to 16 knots, the maximum recorded wind speed range between 46 knots in July to 74/78 knots in the winter and autumn periods.

It has been recorded that reduced visibility (drizzle / fog) can happen approximately 15 to 20 days per month during winter months .

5. **Risk assessment** - At a later stage in the project it will be necessary to undertake a risk assessment.

6. **Barges and tugs** - It is understood that Thames Water plc may opt to utilise barges capable of lifting 350 tonnes.

Barge measurements 32.5 m x 8.2 m x 2.0 m loaded draft (approx.)

Tug measurements 30.0 m x 5.0 m by 2.5 m loaded draft (approx.)

Length of tow 64.0 m to 73 m (approx.)

The shorter length (64.0 m) is with the tug pushing, whereas the longer length (73.0 m) is with the tug towing a barge.

7. **Berthing barges** - Should Thames Water wish to move barges alongside the river bank on the Barn Elms side it is quite clear that without dredging there is insufficient water depth to move light or loaded barges in this area.

For Thames Water to be able to load or discharge barges lying alongside the river bank an amount of dredging will be necessary. For three barges to moor alongside the bank approximately 15,000ft³/10,000ft³ river bed will have to be removed. (Chart Barn Elms Reach (upper) Work PLA 311).

This will of course require an environmental impact statement at both the site and at the dumping ground.

Great care must be taken when manoeuvring loaded barges off the loading bay to ensure that the tow is lined up correctly to transit Putney Bridge through the centre of the centre arch.

8. **Spoil discharge rates** - It is understood that Thames Water anticipate moving 1700 tonnes to 2600 tonnes of spoil per day.

As per section 6 the length of the tow is in excess of the width of arch number three (Centre Arch). For the tow to become beam on to the arch it is quite likely that both the tow and bridge could be damaged.

9. **River bank** - Great care must be taken of the river bank particularly where the bank has been strengthened with retention walls or piling. It is most important that serious examination is given to the bridge area and immediately downstream beyond St Mary's Church.

10. **The following requirements** - as noted in June e-mails

Tasks completed

a. Annual weather tables 1999 to 2011 including but not limited to :- wind speed and direction, precipitation, number of fog days, barometric pressure and tendency. **Completed**, but further detailed information will be required in the future

b. Tidal curves for the River Thames. **Generic tide curves for the area are available and have been studied.**

c. Require the deep, light drafts and water plan areas of the proposed barges. **Complete**

d. Require the deep draft of tugs. **Complete**

Tasks requiring further investigation

a. Traffic density tables for years 1999 to and including 2011. **This information was not available.**

b. Profile of tidal and river currents. **There is no information regarding freshets.**

c. Data relating to river wall retaining piles/ structures along the Barn Elms site. **Information not available**

d. Require PLA marine regulation - towage and manoeuvring loaded and light barges. **These elements are not yet being considered.**