



Analysis of all responses received to the Local Flood Risk Management Strategy (LFRMS) consultation that took place from 26th January – 6th March 2015

Officer comments and changes to the LFMRS

Please note the responses below are exactly as received from the respondents and have not been edited by the Council. They have not been ordered alphabetically or by priority.

Respondent Reference Number	Name / Organisation	Detailed Comments	Officer Comments	Proposed Changes			
	Do you believe that the strategy has effectively investigated flood risk in the London Borough of Richmond upon Thames in Section 2? If not, please state where you feel we could investigate flood risk further						
46% of online	respondents answ	vered "Yes" to this question. 54% answered "No", and provided the	ne detailed comments bel	OW			
2	John Burrows, Local resident	There is a serious error in the presentation of the topic of 'flooding' in the Borough of Richmond Draft Report. Although river and sea flooding are the dominant National causes of flooding. It must be remembered that short term flash flooding and other accidental causes of flooding can exacerbate any resultant flood situations. Therefore the overemphasis on 'sea and river flooding' where the generic term 'flooding' must be applied in the report is wrong. This leads to all sorts of problems like the rainfall conditions for Zone 1 are those that exist in a desert.	All sources of flooding have been considered in the report, in proportional weighting. Tables 2.1-2.3 identify flood risk from all sources.	No change			
5	Paul Johannsen, Local resident, Representative of local business, Representative of community or voluntary	Any studies must include the results of; a) The increase in flows to LBRUT from the Datchet to Teddington upstream flood relief schemes. b) The observed increases in sea level >1mm per year. c) The observed dipping of southern England >1mm per year. d) Scenarios when the Thames Barrier cannot be closed (due to storm surges and neap and spring tides). e) Accelerate funding for the increase in conveyance of water through Teddington Weir.	No hydraulic modelling was undertaken as part of the LFRMS. Comments have been noted. The assumptions of the modelling have been detailed in the report.	Reference to original report for further information is available (SWMP and PFRA, References 10 and 11 Table 2-1)			





7	group, Landowner/de veloper/consult ant/agent Jon Rowles,	f) Refuse planning for all schemes adding impediments to flow at Teddington (>100kW hydro).	Comments noted	Comments noted and
1	Local resident	Hospital Bridge Road regularly floods when there is heavy rainfall.		included in Table 2-1.
8	Gary Beecroft, Local resident	As I am not aware of the strategy it clearly is not effective.	Comment noted. The Strategy was the consultation document, which was available online together with the survey and other background information. In addition, hard copies were available for inspection in the Borough's main libraries.	N/A
10	Local resident (anonymous)	This needs to link with updated policies on management of basement planning applications (I understand this is work in progress to update the current inadequate policy - much of the Kew area is flat and in a flood plain - the increase in basement developments is totally unacceptable) and enforcement of using front gardens for parking - especially in the Kew area - resulting in lack of soak away / drainage. Everything is working at maximum capacity now - drainage/sewers etc.	Comments noted, the LBRuT Good Practice Guide for Basement Developments (available online) sets out guidance and best practice for basement developments, including consideration of groundwater, land stability, flooding and drainage.	No change





			The influence of increased impermeable areas for parking could lead to increased surface water runoff in the future	
11	Friends of the River Crane (FORCE)	The Crane and Duke of Northumberland's River ultimately flow into the tidal reaches of the Thames at Isleworth. The two rivers make a contribution to the overall flood risk of these tidal reaches, including those within LBRuT, so improved management of the flood risk in the Crane may also provide benefits to the flood risk in the Tidal Thames. FORCE is not convinced that the risks of fluvial flooding from the River Crane are "relatively well understood" by the Environment Agency ("EA") (1.1.4). The EA is still undertaking flow analysis of the Lower Crane prior to considering river naturalisation measures. Neither are the risks and opportunities posed by expanded water-treatment facilities at Heathrow Airport sufficiently well understood to form the basis for decision-making.	Comments noted and included in report	Comments included in Table 2-4 "Both the Crane and the Duke of Northumberland's rivers flow into the tidal reached of the Thames, contributing to overall flood risk of the tidal reaches" Section 1.1.4 text changed to: "Risks from tidal and fluvial flooding associated with the River Thames, Hogsmill, Beverley Brook, and Whitton Brook are relatively well understood and have been managed at a national scale for many years by the





Section 2? If	not, please state v	gy has effectively displayed flood risk findings in the London where you feel we could display the findings better: vered "Yes" to this question. 64% answered "No" and provided th		
2	John Burrows, Local resident	The treatment of Zone1 is ill founded.	The treatment of Flood Zone 1 has followed National Policy and legislation as part of the Flood and Water Management Act 2010	No change
5	Paul Johannsen, Local resident, Representative of local business, Representative of community or voluntary group, Landowner/de	The modelling data appears to be derived from the existing EA flood risk model. a) This model is unstable at the boundary of tidal and fluvial flows at Teddington. b) The model does not include impediments to flow of the weir structure c) The model uses reynolds number assumptions not derived from actual analysis of the structures It would be very useful to illustrate the trends of increases in the flood defences historically and into the future rather than continuing the description of flood probabilities.	No modelling was carried out as part of this study. The assumptions of the modelling done previously have been stated in the report. Flood probabilities will remain as the description of flood risk through time.	No change



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Consultation	on period: 26 th J	January – 6 th	March 2015

	veloper/consult ant/agent			
7	Jon Rowles, Local resident	Need to split the map up, as there isn't enough detail on the web version - too pixilated	Comments on display noted. Additional mapping will not be produced, the background OS mapping has been chosen such that individual property flooding cannot be detected.	No change Online maps will be uploaded with the highest resolution possible.
8	Gary Beecroft, Local resident	What displays?	This comment has not been addressed as the respondent has not commented on the information presented in Chapter 2.	N/A
9	Robin Narayan, Local resident	In St Margaret's/Cole Park there has been an increase the prevalence of standing water in Moor Mead Gardens, once the ground has become saturated. This was evident during 2014.	Noted, this comment will be included in Table 2-1.	Text changed to: Parts of St "Margaret's/Cole Park are known to suffer from standing water when the ground in Moor Mead Gardens has become saturated."
10	Local resident (anonymous)	Open on-line consultations do not really work. Residents need to understand the risks about living in the area, what they should be doing to minimise flood risks via their local Council.	Reference to what residents could do to minimise flood risk can be found in chapter 3.3.6. LBRuT will include a "Your	No change to LFRMS. The Council's flooding webpage will be updated accordingly.





		I have not been approached directly by any Councillor regarding flood risk in the Kew area, how to minimise any risk and how any improvements can be made to the revetments. Kew is principally located due to its royal and river connections. It is essential that - because of historic connections of the site - both Richmond and Hounslow Councils work far more closely together - it is unacceptable that both do not share the interests of the local communities - even if it means a compromise is agreed.	responsibilities" section on the Lead Local Flood Authority webpage. The measures and actions in accordance with objective 1 of the action plan clearly outline plans to work collaboratively and address flood risk.	
11	Friends of the River Crane (FORCE)	FORCE does not agree that the "flashiness" of the River Crane is "due to smaller catchment size" (Table 2-4). It is due to extensive urban hardstanding, underdeveloped Sustainable Drainage Systems ("SuDS") and extensive toe-boarding of the Crane above Mereway Road. Whilst FORCE accepts that flash flooding events are difficult to predict, FORCE believes that the key to effective flood management of a flashy catchment such as the Crane is managing the peak flood flow. Measures that can reduce and spread out the peak flood response will ultimately reduce the risk to properties at the downstream end of the catchment. Such measures are different from those proposed, and include planning policies which deter hardstanding, positive promotion of SuDS and removal of toe-boarding. Moreover, removal of the concrete channel downstream of Mereway Road could decelerate discharge into the Thames and concomitant flooding. The importance of all of these measures is increased by the expectation of increased flash flooding due to climate change and the need to reduce fluvial flood risk in west London.	Comments noted regarding source of flashy nature of flooding along the Crane.	Text changed to: "Flooding events from the River Crane and Beverley Brook are often much 'flashier' (shorter duration but increased hazard) due to smaller catchment size extensive hardstanding areas, underdeveloped sustainable drainage systems and extensive toe- boarding of the Crane above Mereway Road"
		FORCE is concerned at the implicit acceptance in the strategy	The second measure	





		of the incidence of sewer flooding and the expectation that the potential risk of sewer flooding will increase (Table 2-5). FORCE believes that the EA must hold Thames Water to account for effective investment and maintenance of its sewers, and provide a lead in reducing surface-water inflows into combined sewers. FORCE looks to LBRuT to bring such pressure as it can to bear on the EA in this regard.	addressing Objective 2 in the action plan states that a comprehensive protocol will be developed to ensure flood risk events are investigated where the Council deems it appropriate. The LFRMS cannot enforce legal action among other stakeholders.	No changes made
missing? 55% of o)	ties for the risk management authorities clearly defined in Severed "Yes" to this question. 18% did not provide a "yes" or "no" is		
4	Local resident (anonymous)	I am a little confused about the responsibility for flooding from main rivers (in particular the Thames) and other watercourses and indeed whether the two can be clearly differentiated - I suppose therefore I have a concern whether or not despite the stated intentions to work with the Environment Agency, there is any risk of confusion about such responsibility between the agencies themselves.	Comments noted.	A summary table of the responsibilities set out in chapter 3 has been provided in Section 3.1
5	Local resident, Representative of local business, Representative of community or voluntary group, Landowner/de	There are a number of businesses that are based in the river and provide essential services to the navigation and tourism as well as leisure and residential boating that are underrepresented.	LBRuT is aware of the borough's river-related and river-dependent uses and businesses. The borough's policies protect such uses and support their enhancement.	No change





	veloper/consult ant/agent			
8	Local resident	I have looked for the strategy document online to no avail.	Comment noted. The Strategy was / is available on the Council's website at: https://consultation.richmond.gov.uk/environment/flood-risk LBRuT will notify residents when the LFRMS has been adopted and will ensure ease of access to the final document with corresponding maps and appendices,	No change
			both online and in the borough's libraries.	
9	Local resident	The roles for RMA's are clear, however 3.3 mentions Individual responsibilities. This will require some clear Community/Resident education. With the largest green open spaces in London, leaves are a prominent aspect of domestic gutters. I acknowledge 9.4 of Strategic Environmental Assessment - Environment Report, Draft for Consultation	Comment noted. LBRuT will include a "Your responsibilities" section on the Lead Local Flood Authority webpage.	The Council's flooding webpage will be updated accordingly.
10	Local resident	Maybe you should outline Section 3 above	This comment has not been addressed as the respondent has not commented on the information presented in Chapter 3.	No change





11	Friends of the River Crane (FORCE)	The composition of the South West London Strategic Flood Group may be well adapted to the risks posed by the Thames, but it excludes the Crane altogether. Given that some 70 per cent of the Crane catchment is upstream of the borough, in boroughs outside the South West London Strategic Flood Group, then much of the management control lies with these four upstream boroughs, and LBRuT as the LLFA needs to establish effective relationships with them.	Comments noted. Include the CVP in Section 5.2 and discuss the importance of cooperation within hydrological boundaries rather than political boundaries	Additional Text included in paragraphs 5.2.4 and 5.2.5
		The Crane Valley Partnership ("CVP") is an important forum for a catchment-wide approach to the Crane. It should be referenced here, and LBRuT, as a member of the CVP, should set out how it intends to work through the CVP to catalyse flood-risk management actions in the catchment.		
		"Maintain asset register" (Figure 3-1): FORCE has difficulty understanding how LBRuT proposed to discharge this responsibility, given the limited knowledge of asset condition that has been exposed by recent pollution incidents in the Crane. Likewise, FORCE questions how LBRuT will discharge its responsibility as a "SuDS Approving Body" (when enacted), given the number of misconnections that seems probable in the Crane catchment.	Report to be updated and amended with changes in PPG regarding SuDS responsibilities.	SuDS responsibilities reflected throughout document.
		(3.2.9) FORCE believes that the EA has a critical role in holding Thames Water to account for removing wastewater from premises. FORCE questions the effectiveness of the current EA regulatory regime, including the scale of financial penalties, to secure this accountability.		
		Given the existence of the combined sewer outflows and the permitting of discharge from them, FORCE questions whether the incentives on Thames Water are sufficient to motivate it to		





		be effective in draining surface water from roofs, yards and outbuildings. (3.3.1) LBRuT should not expect individuals to "dispose of leaf litter" unless they are set a clear example by the Council itself promptly and effectively removing leaf litter from drains and gutters, thereby significantly reducing the incidence of roadside flooding. (3.3.4) Where LBRuT itself is a Riparian Owner, as is the case at Craneford Fields, FORCE would welcome explicit recognition that the flood risk management measures which LBRuT could undertake include removal of the concrete channel should flow-modelling confirm that that is a valid risk management measure.		
55% of online are provided b	•	vered "Yes" to this. 27% did not provide a "yes" or "no" answer, we have a study does not include the behaviour of the Hogsmill and	hilst 18% answered "No". Comments noted; No	All detailed comments No change
3	Representative of local business, Representative of community or voluntary group, Landowner/de veloper/consult ant/agent	Mole and the imminent Datchet to Teddington flood relief scheme. The study does not include future proofing for say 50 to 100 years when levels will be 300mm to 600mm higher than at present.	additional modelling was completed as part of the study. The report references the assumptions to the modelling used within the study.	TVO GHATIYE
8	Local resident	Hard to say.	LBRuT will ensure the document is easily available online.	No change





10	Local resident	[Maybe you should outline Section 3 above]	Comments noted	No change
11	Friends of the River Crane (FORCE)	"maintaining partnerships" needs to include reference to the Crane Valley Partnership, as a way of working with the upstream boroughs and potential participants e.g. Heathrow Airport Limited	Comments noted.	Text in Table 5-1, measures to achieve objective 1 – "Continue the working relationship with
		"improving knowledge and understanding" – a properly functioning and fit-for-purpose Environment Agency ought to be able to provide a great deal of this knowledge and understanding, without duplication from LBRuT.	Noted. All comments from the EA have been fed back into the LFRMS.	FORCE and other local groups"
		"Residents, businesses and local landowners" will only meaningfully contribute if they believe that the established government agencies e.g. LBRuT and the Environment Agency are doing their jobs properly; and if the principal participants e.g. Thames Water are taking their full share of responsibility, being held to account for their performance, and not seeking to shed the responsibilities for which they are funded onto private individuals, businesses or landowners.	Noted. The finalised report and Action Plan will clearly describe the different responsibilities of the residents, businesses and landowners, and this will help each party contribute to reducing flood risk.	
		Table 4-1 "A catchment based approach": FORCE would like to see commitment to this approach applied with equal rigour to the Crane as to the Thames.	Noted. All catchments will be considered with equal rigor.	
		Table 4-1 "Sustainability": FORCE absolutely endorses the principle that "solutions to flooding problems should work with natural processes and aim to enhance the environment." FORCE wishes to see LBRuT commit to put this principle into practice in promoting naturalisation of the River Crane Corridor throughout the borough.	Noted. As set out in objective 5 of the Action Plan, LBRuT will ensure that wider environmental benefits are considered	





			alongside flood risk, and will consider promoting naturalisation.	
	nline respondents ansv	ear direction on how the council intends to manage local flowered "Yes". 18% did not provide a "yes" or "no" answer, whilst 2		
2	Local resident	Zone 1 considerations	Flood risk from all sources has been considered throughout the strategy report, although areas are within fluvial flood zone 1, all other sources of flooding have been addressed.	No change
5	Local resident, Representative of local business, Representative of community or voluntary group, Landowner/de veloper/consult ant/agent	The strategy exhibits cut and paste from other councils flood risk analysis and is not tailored enough. There still appears to be poor understanding of the issues and it is reactionary rather than future proofed.	The Strategy has been specifically prepared for the London Borough of Richmond. Comments highlighted through this consultation and discussions with leading flood risk groups across the borough have been fed into the final report. Changes from the EA have been adopted and the report is considered robust, showing a good	No change





			understanding of flood risk across the borough.	
11	Friends of the River Crane (FORCE)	(5.2) "Forge partnerships etc": An equivalent reference to that for the South West London Strategic Flood Group should be made to the Crane Valley Partnership, including further information about the expected contribution of the CVP to flood risk management.	Comments noted.	Reference to the CVP has been included in Section 5.2
you change?		d measures and actions set out in Table 5.1 will achieve the		
45% of online below.	respondents ansv	vered "Yes". 27% did not provide a "yes" or "no" answer. 27% an	swered "No". All detailed	comments are provided
4	Local resident	It is difficult for me to judge, but the analysis and action plan appear thorough.	Comment noted	No change
11	Friends of the River Crane (FORCE)	"Partnerships" objective requires reference to CVP.	Actions to address Objective 1 of the Action Plan highlight FORCE as a local stakeholder.	No change
		"Knowledge and understanding" objective will be constrained by the capacity of the EA to provide key aspects. LBRuT needs to be clear and resolute about respective responsibilities for providing relevant information.	Comments noted. The LFRMS will clearly set out the roles and responsibilities of the different flood risk management authorities.	
Are there any to achieve it	other actions th	e council could take to address flood risk in the borough?	f yes, please specify the a	action and the measures
82% of online		vered "Yes" to this question, most providing comments detailed baswer. 9% answered "No". All detailed comments are provided b		sures and actions. 9%
1	Richmond Housing	Involve RHP as a major landowner at an early stage if and when there is potential for a flooding incident.	Comment noted	No change





	Partnership			
2	Local resident	Consider the rainfall statistics that exist in order to assess Zone 1 risks	No additional rainfall statistical analysis will be completed as part of this study. Modelling has been undertaken based on detailed hydrological assessments that conform to national standards.	No change
3	Local resident	Create more awareness among residents in locations most at risk by circulating information	Comment noted. LBRuT will include a "Your responsibilities" section on the <u>Lead</u> <u>Local Flood Authority</u> webpage.	Webpage to be updated accordingly
4	Local resident	One of my greater personal concerns is the continued availability of flood insurance to the ordinary householder in flood risk areas. It may be said that this is not the purpose of the strategy and outside the remit of the Borough - which is no doubt true but it is a significant concern to residents and I would like to see some guidance or comment at least on this issue in the strategy.	Comments noted. The Council is unable to advice on flood insurance matters. Note that insurance industries use their own flood maps, which are commercially sensitive so the Council is unaware which data they use. The National Flood Forum provides advice on how to get	No change





7	Local resident	I fear this is a talking shop document and won't lead to real action.	Thames Catchment. The Action Plan in Appendix B clearly indicates the measures and actions proposed to achieve the objectives of the LFRMS.	No change
5	Local resident, Representative of local business, Representative of community or voluntary group, Landowner/de veloper/consult ant/agent	Increasing conveyance through the borough without flooding requires a much wider scope to ensure that value for money and risk mitigation is achieved. LBRUT should represent themselves as the peer review borough for all upstream schemes as they will be receiving increased flows. There remains arguments for dredging the reach and the EA should publish all bathymetric survey results. We believe the reach has shoaling up to +0.5m since the last survey. WFD aspects suggests much greater emphasis be placed on licencing and enforcement of all sewage outlets including cess pits and analysis of the removal and disposal of historical pollution.	insurance or how to reduce premiums. The Association of British Insurers also provides further information and advice. The measures and actions to address Objective 1 of the Action Plan identifies strategies to work with upstream Boroughs Comments noted. The Environment Agency should be consulted regarding licensing and enforcement issues relating to sewage outlets, as outlined in the WFD,	No change



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Consultation period: 26 th Ja	nuary – 6 th March 2015
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8	Local resident	Council is aware of faulty drainage problems is Hospital Bridge Road but they need a lot of prodding to do anything. At one point in 2014 there were 15 blocked drains in this ration of road - contractors don't cone off road before clearing gullies so many are missed. Make the strategy available to read.	Comments noted: Clear actions and measures in the Action Plan address clearing gullies The document will be	N/A
			made easily accessible online.	
10	Local resident	Work alongside Hounslow Council. Address basement / soak away issues in Kew and areas that could be affected by flooding.	Comments noted, the LBRuT Good Practice Guide for Basement Developments (available online) sets out guidance and best practice for basement developments, including consideration of groundwater, land stability, flooding and drainage.	No change
11	Friends of the River Crane (FORCE)	(5.3.4) The strategy explicitly states that "The majority of actions are based on improving communication and education of residents and property owners to enable them to help themselves." FORCE would like to see equivalent emphasis placed on rigorously holding to account those parties which have a contributory role in delivering the strategy, including the EA, Thames Water and Heathrow Airport Limited.	Comments noted. It is not the intention of the strategy to be used as a basis for holding parties to account; however the second measure to address objective 2 indicates that a comprehensive protocol for ensuring incidents are thoroughly investigated.	No change





The upper and middle reaches of the river are virtually all toe-boarded and this has a significant control on the river character and its response to high river flows. The boards are not overtopped and the flow is largely unconstrained by marginal vegetation or gentle meanders. The result is that the peak river flow in the lowest parts of the river is likely to be significantly higher than it would be under more natural channel conditions, thereby increasing the flood risk in Richmond and Hounslow. FORCE would support a programme to remove these toe-boards, as a further and manifest "Quick Win" (5.3.8).

FORCE is already working in association with LBRuT at Mill Road and Willow Way on low-cost projects that will enhance flood resilience, as well as bring broader social benefits that LBRuT envisages and that FORCE supports.

(6.4) The strategy explicitly references the Water Framework Directive. FORCE would like to see greater specificity as to how LBRuT proposes to work with the EA to deliver targeted improved water quality that is consistent with flood risk management; and explicit recognition that improved water quality and flood risk management are not mutually exclusive.

FORCE believes that there is a range of other actions that the council could take to address flood risk in the borough:

1 FORCE is working alongside partners in CVP to introduce more marginal wetland habitat into the river corridor. This has benefits for wildlife and pollution

Comments noted. Section 5.3.8 to be amended to include removal of toe-boards as a quick win option. Additional text included in report at paragraph 5.3.8: "Removal of toeboards in the upper and middle reaches of the river, which currently constrict flow. This is expected to reduce peak flows."

Additional text included at paragraph 5.3.2: "Continue the working relationship with FORCE and other local groups."

Comments noted.

Measures and Actions to address Objective 5 indicated using flood



5 A critical obstacle to progress on naturalisation is the



management as well as being of significant aesthetic benefit. However, these systems can also be designed to provide added benefits in terms of reducing the downstream flood peak. 2 Much of the upstream catchment has an associated natural flood plain which is undeveloped by buildings. However, we believe this flood plain is currently relatively under-utilised. A review of the nature and operation of this flood plain, including allowing the inundation of designed wetland features and marginal habitats, could provide a significant reduction in the peak flood flow for the downstream catchment. It would also greatly enhance the habitat value of these upper and middle reaches 3 FORCE is also evaluating the option of installing wetland systems around key surface water outfalls into the river. The principal purpose for these would be to act as filters for organic pollution – but they may also have benefits in terms of reducing the flood peak. 4 The lower Crane below Mereway Road weir is in a deep concrete channel. CVP and the EA are considering the potential for river restoration in the lower reaches of the Crane, removing the river from its concrete channel in open reaches, including three sites within LB Richmond. This approach is also endorsed by the LB Richmond SPG for the lower Crane Valley. Any such scheme would require a considerable amount of river modelling to show how it would respond to flood flows, and is likely to be required to perform better than the current system.		
natural flood plain which is undeveloped by buildings. However, we believe this flood plain is currently relatively under-utilised. A review of the nature and operation of this flood plain, including allowing the inundation of designed wetland features and marginal habitats, could provide a significant reduction in the peak flood flow for the downstream catchment. It would also greatly enhance the habitat value of these upper and middle reaches 3 FORCE is also evaluating the option of installing wetland systems around key surface water outfalls into the river. The principal purpose for these would be to act as filters for organic pollution – but they may also have benefits in terms of reducing the flood peak. 4 The lower Crane below Mereway Road weir is in a deep concrete channel. CVP and the EA are considering the potential for river restoration in the lower reaches of the Crane, removing the river from its concrete channel in open reaches, including three sites within LB Richmond. This approach is also endorsed by the LB Richmond SPG for the lower Crane Valley. Any such scheme would require a considerable amount of river modelling to show how it would respond to flood flows, and is likely to be	benefit. However, these systems can also be designed to provide added benefits in terms of reducing the	tackle wider environmental
systems around key surface water outfalls into the river. The principal purpose for these would be to act as filters for organic pollution – but they may also have benefits in terms of reducing the flood peak. 4 The lower Crane below Mereway Road weir is in a deep concrete channel. CVP and the EA are considering the potential for river restoration in the lower reaches of the Crane, removing the river from its concrete channel in open reaches, including three sites within LB Richmond. This approach is also endorsed by the LB Richmond SPG for the lower Crane Valley. Any such scheme would require a considerable amount of river modelling to show how it would respond to flood flows, and is likely to be	natural flood plain which is undeveloped by buildings. However, we believe this flood plain is currently relatively under-utilised. A review of the nature and operation of this flood plain, including allowing the inundation of designed wetland features and marginal habitats, could provide a significant reduction in the peak flood flow for the downstream catchment. It would also greatly enhance the	Comments noted.
concrete channel. CVP and the EA are considering the potential for river restoration in the lower reaches of the Crane, removing the river from its concrete channel in open reaches, including three sites within LB Richmond. This approach is also endorsed by the LB Richmond SPG for the lower Crane Valley. Any such scheme would require a considerable amount of river modelling to show how it would respond to flood flows, and is likely to be	systems around key surface water outfalls into the river. The principal purpose for these would be to act as filters for organic pollution – but they may also have benefits in	will be considered in options for meeting
required to perform better than the current system.	concrete channel. CVP and the EA are considering the potential for river restoration in the lower reaches of the Crane, removing the river from its concrete channel in open reaches, including three sites within LB Richmond. This approach is also endorsed by the LB Richmond SPG for the lower Crane Valley. Any such scheme would require a considerable amount of river modelling to show	to be included in future

Comments noted;





		funding of feasibility studies. Given the vulnerability of LBRuT to high flood flows arriving from the upstream Thames and Crane, it is important for LBRuT to work with the EA to secure funding for feasibility and for investments in naturalisation which could mitigate these risks. Feasibility needs to focus on delivery, with clear accountability for progress on the ground.	Section 5.5 details the potential funding routes	
		g process set out in Section 7 is acceptable? If not, what wo		
		vered "Yes" to this question. 9% did not provide a "yes" or "no" and comments are provided below.	nswer. 9% answered "No"	. 36% did not provide a
5	Local resident, Representative of local business, Representative of community or voluntary group, Landowner/de veloper/consult ant/agent	The EA as statutory consultee appear to have conflicts of interest in that specialist flood report data is produced by a single consultant who are themselves associated with the LOT 4 contractor in the borough. Peer review of data must include local stakeholders and independent consultants	Government legislation has been followed for preparing the Strategy. The report has been sent out for consultation and feedback has been received from local stakeholders. Independent consultants have not peer reviewed the document; it is not a requirement to do this and would significantly add to the Council's costs in producing the Strategy.	No change
11	Friends of the River Crane	(7.2.1) Relevant findings from the annual monitoring process should also be made available to the CVP.	Comments noted.	N/A





(FORCE) Do you have any other comments relating to the Draft LFRMS, the Strategic Environmental Assessment or Habitats Regulations Assessment? Local resident. The published data for species migrating into the borough is No change Comments noted. Representative extremely poor and does not include seals or otters or many Reference to the Details in Chapter 6 species of fish. We have undertaken study in this area and Habitats Regulations of local suggest it should be published. Assessment for the business. Representative Strategy included, of community where more detailed or voluntary information is available. group, Landowner/de veloper/consult ant/agent The council still does not have detailed understanding of Measures and Actions No change 7 Local resident drainage across all areas of the borough - esp. in relation to have been set out to the railways / and too many assumptions made. achieve Objective 2 **General Responses made via email** Thanks for your letter of 26.01.15 in regard to the London N/A 12 Anneli Comments noted. No Harrison, Borough of Richmond Upon Thames Draft Local Flood Risk actions relating to the Office of Rail Management Strategy. We have reviewed your proposals and LFRMS report. Regulation supporting documents & note the comments concerning flooding at Heath Road rail crossing. The ORR has no comment to make. It might be helpful if I explain that the office has a number of

key functions and duties in our role as the independent regulator of Britain's Railways. If your plans relate to the development of the current railway network including the operation of passenger and freight services, stations, stabling and freight sites (including the granting of track and station access rights and safety approvals) within your administrative area, we would be happy to discuss these with you once they





		become more developed so we can explain any regulatory and statutory issues that may arise. I have attached a copy of our localism guidance for reference, which can be found at: http://www.rail-reg.gov.uk/upload/pdf/localism-guidance.pdf		
13	Tony Ferris, Parsons Brinckerhoff On behalf of the Highways Agency	Thank you for your email dated 26 January 2015 regarding the above consultation. The HA is an executive agency of the Department for Transport (DfT). We are responsible for operating, maintaining and improving England's strategic road network (SRN) on behalf of the Secretary of State for Transport. The HA will be concerned with proposals that have the potential to impact the safe and efficient operation of the SRN. The HA do not have any comments to make on the consultation document.	Comments noted. No actions relating to the LFRMS report.	N/A
14	Martin Blaiklock, local resident	This is quite the worst Consultation process I have ever come across in 30-odd years I have been working in the UK infrastructure/public service sector. This Consultation is, at the local level, part of a national Consultation being undertaken by the Environment Agency on Flood Plans. (a) the overall (national) Consultation document pack comprises over 4000 pages of text, spread across 20-25 reports; (b) The reports for the Thames comprise 448 pages for the	Comments are noted. This consultation was specifically a Councilled consultation on its own Local Flood Risk Management Strategy – this was clearly set out in the consultation letter and on the website: https://consultation.richmond.gov.uk/environment/flood-risk	N/A



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Plan and 67 for the Environmental supplement. A significant amount of material to absorb and upon which to comment!; However, you will know from the recent Flooding mtgs, that what happens or is planned upstream, hits us, in Teddington, lower down!

- (c) The size of the electronic file for the Thames Plan is 24MB, which for most potential public Consultees will be too large to transmit via the internet;
- (d) The documents have a rudimentary index. Just taking the Thames Plan, there is no index for the sections between pages 60 and 306, a mere 250 pages of information for Consultation!!

Further, this part of the Plan is split into subsections, organised alphabetically, with each subsection entitled by a regional name, often relating to tributaries, not towns or communities. It would have been more logical, given the limited knowledge by many as to where such tributaries are, to have organised this part of the Plan in sequence along the Thames, either from the bottom to the top, or vice versa!

Under all this, one has the Richmond Plan (for which Consultation finishes tomorrow), which naturally should dovetail with the Plans for the 3(?) Boroughs which live on the opposite bank. However, there is no statutory requirement that Borough Plans dovetail, which I would have thought essential and common sense

For such a serious issue as flooding, in my view the Env. Agency, - and by association, LBR, - get 'nil point'. They have forgotten that it is their responsibility to communicate clearly

In our consultation documents, we did not refer to or encourage responses in relation to the "Thames Plan".

This consultation opportunity was for discussion surrounding the LFRMS, not the Thames document. LBRuT is unable to address comments on the Thames document.





	with the population in the first place, and not vice versa		
	Martin		
	PS being cynical, what better way to protect your pension as a Whitehall servant than to confuse the public, so the process has to be repeated again, and again, and againwith no accountability!!		
Charles Muriithi, Environment	Thank you for consulting the Environment Agency on the draft local flood risk management strategy.		
Agency	Richmond is a unique London borough, crossing both sides of the River Thames with a mix of flood risk from tidal, fluvial, groundwater and surface water flooding and including the tidal limit at Teddington Lock. Richmond also has a number of tributaries to the River Thames such as the Beverley Brook and River Crane. Flooding from local sources can cause major disruption to residents and visitors and requires a partnership approach to successfully manage this and other forms of flooding.	Comments noted, and are reflected in the report.	
	The draft Local Flood Risk Management Strategy appears consistent with the National Flood Risk and Coastal Erosion Management Strategy (NFCERM). This is in accordance with the Flood and Water Management Act which requires local flood risk management strategies to be consistent with the guiding principles for managing flood risk set out in the national strategy. We support the objective to keep the strategy updated to ensure that its content and emphasis remains relevant. We are keen to work with you to keep the strategy updated and informed by the latest evidence and information on flood risk.	Comments noted and highlighted to validate sign off of the report.	
	Muriithi, Environment	PS being cynical, what better way to protect your pension as a Whitehall servant than to confuse the public, so the process has to be repeated again, and again, and againwith no accountability!! Charles Muriithi, Environment Agency on the draft local flood risk management strategy. Richmond is a unique London borough, crossing both sides of the River Thames with a mix of flood risk from tidal, fluvial, groundwater and surface water flooding and including the tidal limit at Teddington Lock. Richmond also has a number of tributaries to the River Thames such as the Beverley Brook and River Crane. Flooding from local sources can cause major disruption to residents and visitors and requires a partnership approach to successfully manage this and other forms of flooding. The draft Local Flood Risk Management Strategy appears consistent with the National Flood Risk and Coastal Erosion Management Strategy (NFCERM). This is in accordance with the Flood and Water Management Act which requires local flood risk management strategies to be consistent with the guiding principles for managing flood risk set out in the national strategy. We support the objective to keep the strategy updated to ensure that its content and emphasis remains relevant. We are keen to work with you to keep the strategy updated and	Martin PS being cynical, what better way to protect your pension as a Whitehall servant than to confuse the public, so the process has to be repeated again, and again, and againwith no accountability! Charles Murithi, Environment Agency on the draft local flood risk management strategy. Richmond is a unique London borough, crossing both sides of the River Thames with a mix of flood risk from tidal, fluvial, groundwater and surface water flooding and including the tidal limit at Teddington Lock. Richmond also has a number of tributaries to the River Thames such as the Beverley Brook and River Crane. Flooding from local sources can cause major disruption to residents and visitors and requires a partnership approach to successfully manage this and other forms of flooding. The draft Local Flood Risk Management Strategy appears consistent with the National Flood Risk and Coastal Erosion Management Strategy (NFCERM). This is in accordance with the Flood and Water Management Act which requires local flood risk management strategies to be consistent with the guiding principles for managing flood risk set out in the national strategy. We support the objective to keep the strategy updated to ensure that its content and emphasis remains relevant. We are keen to work with you to keep the strategy updated and





further we recommend th	e following updates.
Tartifor Wo Toodiffilloria til	o ronowing apactoo.

Joint working to manage all types of flooding

We support the strategy objective to promote and encourage personal responsibility by raising awareness of flood risk and how this can be reduced and by supporting community-based actions. To strengthen this section further we recommend the following items are also included:

- We recommend updating Section "3.3 Responsibilities of Other Organisations / Individuals" to include reference to "Living on the edge" document which explains the rights and responsibilities of riverside owners https://www.gov.uk/government/uploads/system/uploads/a ttachment_data/file/403435/LIT_7114.pdf
- Any works within 16 metres of the River Thames or a tidal flood defence structure will require Flood Defence consent from us to ensure works do not damage flood defence structures. Contact the Environment Agency for more information.
- Residents located within high risk flood zones should be prepared for flood events and prepare flood plans to minimise the impacts of flooding and sign up to Flood Line 0345 988 1188. For more information on registering for flood warning and preparing flood plans visit: https://www.gov.uk/prepare-for-a-flood

Comment noted. References to living on the edge document included in the report at paragraph 3.3.6.

Comment noted. comments and instruction to contact the EA included in report at 3.3.5

Comment noted, include reference to flood plans and Flood Line. Include link for further information

Additional text in Table 5.1:

"Encourage residents in high flood risk zones to prepare flood plans and sign up to the EA Flood Line 0345 988 1188." Footnote also included at P.36 to https://www.gov.uk/pr





epare-for-a-flood

 In areas of high local flood risk, opportunities should be sought through existing or new forums such as local neighbourhood plan groups and residents associations to highlight local flood risk and develop actions to address the issues. The National Flood Forum provides tools and

guidance on this http://www.nationalfloodforum.org.uk/

Comment noted, include link to tools and guidance

Additional text included at para 5.2.3: "In areas of high local flood risk, opportunities should be sought through existing or new forums, such as local neighbourhood plan groups and residents associations, to highlight local flood risk and develop actions. The National Flood Forum provides tools and guidance"

partners on the River Thames Scheme, LBRuT will assist in the delivery of the River Thames Scheme, providing flood risk reduction measures across the

Comment noted. As

Additional information on the River Thames scheme is included in section 5.6.

For further information on the River Thames Scheme please visit:

https://www.gov.uk/government/publications/river-thames-flood-risk-management-scheme

Thames Estuary 2100 (TE2100) Plan

We are pleased to see reference to the TE2100 Plan on page 13 which is a long term plan to manage tidal flood risk and a changing climate. The relevant flood risk management policy Comments noted. Additional information on the TE2100 plan included in Section 5.5

Borough.

Additional information detailing the policy actions set out in the TE2100 plan for Richmond included in

River Thames Scheme

The River Thames scheme includes parts of the London Borough of Richmond and we recommend your Local Flood Risk Management strategy is updated to include more information on the scheme to manage flood risk. Key actions relate to funding available for possible local property protection for example e.g. door barriers, non-return valves and airbrick covers.





section 5.5

units are Richmond, Twickenham and Kew and Barnes. We recommend referencing these policy units and actions within your local flood risk management strategy to show the complex interaction of flooding and climate change in Richmond from tidal, fluvial, groundwater and surface water flooding.

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/322061/LIT7540_43858f.pdf

Sustainable drainage guidance

We support the production of sustainable drainage guidance for Richmond. Sustainable drainage can deliver multiple environmental, social and economic benefits. We are keen to be involved in the production of this new guidance.

The strategy references SuDS Approval Bodies (SABs). Central government has decided that that the planning system will be used to regulate the approval and maintenance of SuDS instead. We recommend the strategy is updated to reflect this recent change.

We recommend you consider ways to link this draft strategy with evidence from other strategies such as the Strategic Flood Risk Assessment and local plan evidence base on managing flood risk, surface water and climate change.

I hope our response is helpful, if you require any additional information please do not hesitate to contact me.

Comments noted

The SuDS policy section has been updated to align with the changes in national planning policy guidance.

Richmond Council has published a boroughspecific SuDS guidance document, available at: http://www.richmond.g ov.uk/sustainable_drai nage_systems.pdf

Comments noted. Links and references to other strategies will be included in the report Reference to SABS removed:
Funding for Lead
Local Flood
Authorities SuDS
Approving Body
Preparation (and associated text in section 5.5.3 removed). Updated section 'Delivering Sustainable Drainage Systems' included in section 5.2.15-16

Section 3.2.1 and section 3.2.4 updated to include responsibilities of LBRuT following changes in National Planning Policy



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				Guidance
16	Michael Mair, Flood Risk Officer, LB Kingston	Having reviewed the London Borough of Richmond upon Thames' Local Flood Risk Management Strategy I can confirm that the Royal Borough of Kingston upon Thames agrees with the proposals within the documents and associated actions for the management of flood risk within the borough and have no further comments. As a neighbouring borough and a fellow member of the SW London Strategic Flood Group we should be in a good position to continue working closely with any flood risks which affect both of our boroughs. Many thanks for the opportunity for RBK to respond as part of	Comments noted. Comments confirm agreement with peers and neighbouring districts	N/A
17	Richard McEllistrum, Transport for London	the consultation process. Thank you for consulting TfL. Having reviewed the draft Strategy, we have no comments to make.	Noted	N/A
18	David Wilson, Savills On behalf of Thames Water	Thames Water Utilities Ltd (Thames Water) Property Services function is now being delivered by Savills (UK) Limited as Thames Water's appointed supplier. Savills are therefore pleased to respond to the above consultation on behalf of Thames Water.	Comments noted.	
		As you will be aware, Thames Water Utilities Ltd (Thames Water) is the statutory water and sewerage undertaker for the Borough and is hence a "specific consultation body" in accordance with the Town & Country Planning (Local Planning) Regulations 2012. We have the following comments on the consultation document on behalf of Thames Water:	Comments noted.	





Table 2-5. Flooding from other sources-sewer flooding	Comments noted	None
The NPPF states at paragraph 100 that a sequential approach should be used by local planning authorities to avoid inappropriate development in areas at risk of flooding. The NPPG sets out that this applies in areas to be at risk from forms of flooding other than from river and sea including from 'overwhelmed sewers and drainage systems'.		
Thames Water therefore supports the section on sewer flooding in principle.		
Table 2-5 state that in London Borough of Richmond upon Thames the sewers are only expected to accommodate a 1 in 10 or 1 in 15 year event. Thames Water considers it would be helpful if it could be clarified where this statement has come from?	Comments noted	Text changed to: "The capacity of the sewer system can be is therefore limited and is expected to accommodate a 1 in
It should also be recognized that is vital that sewerage/waste water treatment infrastructure is in place ahead of development if sewer flooding issues are to be avoided.	Comment noted.	10 or 1 in 15 year up to the 1 in 30 year storm event. Any rainfall event
Section 5.3.8 It is considered that the proposed reporting system would not be suitable for sewer flooding. For data protection purposes Thames Water request that flooding of properties be reported by the customer to Thames Water to log on the DG5 register.	Comments noted.	exceeding this probability will may likely result in overland flow and may cause a risk of flooding."
In relation to the DG5 register and internal sewer flooding, it should also be recognised that these are flooding incidents that have been reported to Thames Water by the home owners, there are obviously incidents that don't get reported and therefore won't show. For example, some flooding	Comments noted and text amended.	Additional text included in Table 2.5: "As incidents are reported by





		incidents don't get reported as homeowners are worried it could affect the value of their property. If customers want to retrospectively report flooding to Thames Water they can by filling out the sewer flooding questionnaire here http://www.thameswater.co.uk/help-and-advice/9782.htm We trust the above is satisfactory, but please do not hesitate to contact me if you have any queries.	Comments noted and text updated accordingly.	homeowners, some incidents do not get recorded, for fear of asset depreciation, and therefore may be additional incidents which do not show on the register." Link to site included in Table 2-5.
19	Piotr Behnke, Natural England	Thank you for your consultation on the above dated 06 February 2015. Natural England is a non-departmental public body. Our statutory purpose is to ensure that the natural environment is conserved, enhanced, and managed for the benefit of present and future generations, thereby contributing to sustainable development. Wildlife And Countryside Act 1981 (As amended) Draft Flood Risk Management Strategy: Broadly when looking at documents of this kind Natural England will tend to look for a number of areas in particular in order to ensure that at the high level the sites we would be interested in are protected. Given the main proposals set out	Comments noted. Objective 5 of the Action Plan highlights targeting other environmental goals as well as flood risk.	
		there does appear to be a good level of consideration for biodiversity impacts and habitats that are designated at a higher level including Nature 2000 and Site of Special Scientific Interest (SSSIs). It would also be good to ensure that there can be flood storage and attenuation opportunities taken forward as part of the overall strategy as surface water runoff issues are	Comments noted.	



Strategic Environmental Assessment:



N/A

persistent in urban areas and these can provide multiple benefits for selected locations. These can of course include biodiversity and water quality improvements as well as of course Green Infrastructure (GI) which comes forward as part of both developments and higher level local authority managed projects. Comments noted. As part of creating areas of new GI, habitat creation and N/A enhancement opportunities should also be maximised as new or existing wetlands can see huge benefits as well as river restoration such as restoring more natural flows, bankside vegetation and removal of structures and impoundments where this might be feasible. Ensuring GI is used as widely as possible will help the local authority to comply with the National Planning Policy Framework (NPPF) paragraphs 17, 94 and 99 in particular. Supportive comments **Habitats Regulations Assessment Screening:** noted. N/A The level of search being carried out has highlighted a good range of Natura 2000 sites which should be considered, going out as far as considering the Thames Estuary & Marshes Special Protection Area (SPA) and Ramsar site which is almost 50km to the east. The inclusion of Wimbledon Common Special Area of Conservation (SAC) given it's designated habitats is welcomed. Comments noted The conclusion that there wouldn't be any Likely Significant N/A Effect (LSE) overall makes sense given that the plan will always look to conserve a sites nature conservation importance, whether that be locally designated or those sites of European importance. Comments noted





		The fact that designated sites are being considered in the process of assessing the options within the plan is good and should help ensure that as they are drawn up alongside each other they feed into the overall process effectively. Alternatives were only considered in the form of a "do nothing" option which does show what a negative this would be for the local area. The inclusion of more detailed monitoring for biodiversity impacts such as area of new Sustainable Drainage Systems (SuDS) created as part of the flood risk management process in the borough would be useful alongside those already mentioned. We would be happy to comment further should the need arise but if in the meantime you have any queries please do not hesitate to contact us. For any queries relating to the specific advice in this letter only please contact Piotr Behnke on 0300 060 1963. For any new consultations, or to provide further information on this consultation please send your correspondences to consultations@naturalengland.org.uk. We really value your feedback to help us improve the service we offer. We have attached a feedback form to this letter and	Comments noted	
20	Katharine Fletcher, Historic England')	welcome any comments you might have about our service. Thank you very much for your letter dated 26 January 2015 consulting English Heritage draft Local Flood Risk Management Strategy for Richmond. As the Government's adviser on the historic environment		All references to 'English Heritage' changed to 'Historic England'



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historic environment is fully taken into account at all stage	ges
and levels of the strategic planning process.	

General comments and guidance

The matter of flood risk has very great relevance to the conservation of the historic environment, both with regard to direct threats to heritage assets from water incursion or changes to the water-table, and from the potential developments or measures that may be put in place to manage flood risk. The exposure of heritage assets may be summarised as falling into the following categories:

- The vulnerability of most heritage assets (designated and non-designated) to flooding, including occasional flooding, and the potential harm to or loss of their significance.
- The potential impact of flood risk management measures on heritage assets and their settings, and including impacts on water-related or water-dependent heritage assets.
- The potential implications of flood risk for securing a sustainable re-use for heritage assets, including their repair and maintenance.
- The potential impact of changes in groundwater flows and chemistry on preserved organic and palaeo-environmental remains. Where groundwater levels are lowered as a result of measures to reduce flood risk this may result in the possible degradation of remains through de-watering. Increasing groundwater levels and the effects of re-wetting can also be harmful.

We would, however, like to highlight that flood risk management presents certain opportunities for positive conservation, for example:

Comments noted





 Opportunities for conserving and enhancing heritage assets as part of an integrated approach to flood risk management and catchment based initiatives, including sustaining and enhancing the local character and distinctiveness of historic townscapes and landscapes. Opportunities for increasing public awareness and understanding of appropriate responses for heritage assets in dealing with the effects of flooding as well as the design of measures for managing flood risk and improving resilience. Opportunities for improving access, understanding or enjoyment of the historic environment and heritage assets as part of the design and implementation of flood risk management measures. 	Comments noted. These options will be considered in line with the actions set out to achieve Objective 5.	
We hope that the Flood Risk Management Strategy (FRMS) can integrate consideration of the historic environment, by identifying the significance of the historic environment as a key consideration within environmental matters. English Heritage advises that the relevant local authorities' conservation officers (and archaeological experts where available, and appropriate) are involved throughout the preparation, assessment and implementation of a FRMSs, as they are often best placed to advise and	Comments noted.	Reference to Historic England has been included throughout the preparation and implementation of different strategies.
 baseline information on the historic environment and heritage assets; the significance of heritage assets; local historic environment issues and priorities, as for example heritage assets vulnerable to the effects flooding and or those that have been harmed by previous flooding 	Comments noted on the areas where the Local Authority is best placed to advise.	





 events; how measures can be tailored to avoid or minimise potential adverse impacts on the historic environment; the nature and design of any required mitigation measures; and opportunities for securing wider benefits for the future conservation, management and enjoyment of heritage assets, whether through the design and implementation of individual measures and schemes and wider catchment management proposals. Specific comments on the draft Flood Risk Management Strategy and Action Plan The objectives for the Richmond FRMS are set out in para 4.1.1. The fifth bullet among the objectives covers environmental, social and economic outcomes, in accordance with a sustainable approach. English Heritage would like to see explicit reference to the historic environment given that it 	Comment noted.	None Reference to Historic England has been included throughout the preparation and implementation of different strategies.
is encompassed within the environmental dimension of sustainable development as defined in para 7 of the National Planning Policy Framework (NPPF). We would also recommend that the historic environment is included in various sections of the document to ensure that it is fully integrated into the FRMS.		
To take forward this approach we recommend reference is made in the following places:		
 Table 5-1, fourth objective, amend the Measure to read 'Ensure that flood risk management schemes and works in the Borough enhance and improve biodiversity, water quality and the historic and natural 	Comments noted. Amendment included in report	Text in Table 5.1 changed to: "Ensure that flood risk management





 environment' Action Plan, Objective 1, ID004 – the Historic Environment Record should be referred to here which 	Additional information added to the Action	schemes and works in the Borough enhance and improve biodiversity, water quality and the historic and natural environment where possible and take account of the likely effects of climate change"
 is maintained by the Greater London Archaeological Advisory Service (GLAAS). We recommend that reference is made both to GLAAS and English Heritage here as key organisations and sources of advice. Action Plan, Objective 4, ID014 – English Heritage welcomes the proposed production of a Supplementary Planning Document covering flood risk and sustainable drainage systems (Measure and 	Comment noted. Objective 5 sets out actions and measures to reach multi benefit	included in Action Plan, Objective 1 ID004: "Encourage direct involvement in decision making through the establishment of and maintaining partnerships with key organisations, including the Environment Agency, Thames Water, Greater London Archaeological Advisory Services and English Heritage"





		Actions). We would like to see a reference to other environmental considerations here being incorporated as key considerations within the advice, including the historic environment.	solutions.	No change
		 Action Plan Objective 5, ID017 – As we reference above in relation to para 4.1.1, we would like to see the historic environment referred to in the Measure, and GLAAS and English Heritage referred to among the groups and organisations in Action 3. We also recommend that the second Action should refer to using schemes to reconnect people to the natural and historic environment 	Change made to the Action Plan.	Additional text included in Action Plan objective 5 017- "Work together with local environmental groups, including the South West London
		Appendix D Strategic Environmental Assessment We have not provided comments on the content of the SEA report at this stage. It is, however, worth noting that the requirement for SEA encompasses assessment of the cultural heritage and that this is consistent with our comments on integrating the historic environment into the FRMS. I hope these comments are helpful. Please do not hesitate to contact me should you have any queries arising from this response.	Comments noted.	Environment Network and Friends of the River Crane Environment etc, to utilise best practice for the improvement of the historic and natural environment."
21	Brian Holder, Teddington Society and	1. LOCAL FLOOD RISK MANAGEMENT STRATEGY (LFRMS) – VARIOUS DOCUMENTS		
	local resident	Thank you for sending me emailed copies of these documents which I was unable to download for the website. The maps were not very clear, but were recorded as "illegalMediaSize"	Comments noted. The draft LFRMS was also made available in the	





so would not print – perhaps I could borrow a set to copy at a future date.	of A4 plans borough's libraries.	
I have read all the documents on the computer so not print as much of the content was not relevant to Teddington, this means that I may have missed so but I hope that my comments are relevant and use However they may not be in the same order as the	o ome points, oful.	None
 1.1 As the major flood risk for the Borough of Rich Thames, I think that Hounslow and Hammersmith be made key consultees, as we share similar flood incoming high tides meeting floodwaters coming of Thames. The role of the Thames Barrier cannot be and the LFRMS should include a dedicated section explores the risks posed when the Barrier's protect scaled down as is planned, when incoming ultrated to collide with the large volumes of floodwater arriving faster at Teddington, if and when the Environment River Thames (Datchet to Teddington) and Oxford Relief Schemes are put in place – we believe that additional remedial flood risk measures are needed. 1.2 Molesey lock is now the tidal limit for the Tham Teddington Weir is regularly over-topped when his tides occur, leading to minor flooding on the Lower Road. 1.3 Flood area omitted: - Fulwell Station. 	must now derisks with own the derignored, in which tive role is gent des will gent and as such they we consulted on the drait LFRMS. No comment were received from either authority. The London Borough of Hounslow and Hammersmith & Fulham are neighbouring LLFAs and as such they we consulted on the drait LFRMS. No comment were received from either authority.	re t
1.4 Flood areas due to storm drains backing –up:- Manor Road (occasionally) Strawberry Vale (occasionally)	Comment noted. Texamended accordingly	





Udney Park Road (rarely) Queens Road (rarely)		internal database highlighted in the Historic Flooding section of Table 2-1.
1.5 Lost stream – National Physical Laboratory, Queens Road/Admiralty Way.	Comments noted	None
 1.6 SSSI omitted – Bushy Park. I believe that the section of the Pheasantry plantation, north of the cafeteria was listed and approved as an SSSI because of the quality and quantity of its insect life – certainly an application was submitted. 1.7 Flood Area Reporting System needed – the Borough has an excellent computerised system for reporting street and road faults – just add flooding to the subjects covered. 	Comments noted. The Council currently uses a flood logging system within Flood Station, which is a programme available to all London Boroughs through LoDEG (London Drainage Engineers	None
1.8 When we have had fluvial flooding in Teddington, the major source of unnecessary flood damage is speeding vehicles – particularly 4X4s, which create high waves which overtop door steps and shop entrances which otherwise would escape flooding. Bus drivers were praised for driving very slowly when Broad Street was flooded a few years ago. Police need to be instructed to limit vehicle access to flooded areas to emergency vehicles and PSVs only, and could consider prosecution of irresponsible drivers who create these additional flood damage risks.	Group). Comments noted. Drivers are advised to drive slowly through flood waters by various agencies including the EA and AA. This suggestion to be included in the LFRMS.	Quick Win Bullet point added: "LBRuT, in conjunction with the Police and other partners, will investigate the possibility of introducing a traffic





2. THE ENVIRONMENT AGENCY'S RIVER THAMES SCHEME (DATCHET TO TEDDINGTON) AND RECENTLY ANNOUNCED OXFORD FLOOD RELIEF SCHEME- NEW FLOOD RISKS?

Rather than re-hash the arguments about the perceived and real flood risks for the stretch of river between Molesey and Richmond Locks, I include below, a copy of the letter I sent to our MP Dr Vince Cable after we had met him to alert him to our concerns about the suitability or otherwise of the proposed Ham Hydro Scheme for Teddington Weir, and the potential new flood risks if the EA's only flood relief policy relies on rushing water more quickly down to Teddington.

"Dear Vince,

Thank you for coming to the Teddington Society's Flood Working Group meeting at the Lensbury Club last Friday. It was very useful to have the opportunity to explain to you in some detail, our concerns about the suitability and financial viability of the oversized and rather dated hydro design being proposed by the Ham Hydro Team, and the Environment Agency's plans to reduce upstream flooding by moving floodwater much more quickly down to Teddington. I believe that we were able to provide you with enough carefully researched factual information to require the Environment Agency to have a complete re-think on these two major concerns. The Society is committed to support the installation of a Hydro scheme on Teddington Weir – but it must be well designed, fully financed, with minimal adverse environmental affects.

1. The Hydroelectric Scheme proposed by Ham Hydro Ltd

order to limit access or restrict speed on roads during times of flood to prevent bow waves entering buildings"





(no longer a CIC)

The Environment Agency does not consult the public about schemes such as this - it makes this the responsibility of the contractor who is licenced to finance, design, and install, an approved scheme on the Thames. There has been no meaningful consultation by the HH Management Team with the Teddington Society or Teddingtonians in general, and of course, none by the EA either. Apart from an outline description of a four screw design at a public information meeting set up by the Society in late 2011, and the occasional press release, we, on the Middlesex side of the river have been starved of information. It was not until the 23rd August 2013, when completely out of the blue, HH submitted a new planning application for a very large three screw design, with a footprint more than double the size and height of the 2011 outline plan that we found out more. The Lensbury Club immediately lodged formal objections followed fairly quickly by the Teddington Society.

The idea of a Hydro scheme was formulated about 5 years ago by the Ham United Group (HUG), an enthusiastic band of well- meaning environmentalists on the Surrey side of the river, with little or no experience of engineering and company management. The Directors have changed numerous times for no apparent reason, and there was no steady hand on the tiller to ensure that best management and business practices were followed. We understand that fund-raising has posed particular problem, which was another reason for delays and lack of information. In 2011, the Teddington Society appointed two committee members to liaise with HUG, but it was not until well after August 2013 that fairly regular contacts were





made - mainly to get information of any sort from HUG.

A new HH management team took over in late 2013, led by financier Steve Jarvis and a couple of others with a similar background. He recognised that most residents on the Middlesex side of the river were still completely in the dark about the scheme, and set up a "public information" meeting at the Sacred Heart Church Hall in Teddington on 11th December 2013. To use the 2013 "new word of the year" - it was an omni-shambles, the hall was too small and the speakers were ill-prepared. The obvious intention was to launch a drive for funds and to sell shares, but that was not what Teddingtonians wanted – they wanted information about the design, safety, appearance, management etc. - none of which was forthcoming. There is a verbatim record of the meeting which can be made available to anyone who wants more detail – it does not make good reading. A second public information event was held on 4th February 2014 at St Marys Church Hall, Teddington – it was better organised with information points around the room. I spoke to Steve Jarvis to express my concerns about new flood risks and Pete Shaw spoke to him about HH Prospectus finance queries - we did not get satisfactory answers on either subject.

Since then, minor changes to the Hydro design have been made, but our objections and other concerns remain. Steve Jarvis has said that he does not want to impose a design that residents do not want, but that his hands are tied because EA Officer Stephen Naylor will not allow any changes to be made. We had a similar response from Stephen Naylor at the second Flood Working Group on 4th September 2014 when he made it clear that the design proposed was the only one acceptable to him. It may be worth pointing out, that in the





event of the HH design and build collapsing financially, Steve Jarvis has said that the EA will take over responsibility – that is not our understanding. We foresee an abandoned rusting hulk in the middle of the Thames as a distinct possibility if this hydro scheme is approved without a complete redesign and without substantial and reliable new sources of funding.

In any event, it is our view that the upgrading of Teddington Weir must be in place and fully tested before planning approval is given for any hydro design to be built on Teddington Weir – this would allow consideration of other locations on the weir which might address environmental and other concerns – particularly if an experienced and well-financed company is allowed to bid for a licence.

2. The River Thames Scheme (Datchet to Teddington) – must be part of "Whole Thames" Flood Strategy

One of the Flood Working Group's key objectives is to fully understand exactly what happened to cause disastrous flooding downstream of Romney Lock last winter, as similar situations could occur at each of the flood relief measures being proposed under the Thames (Datchet to Teddington) Flood Relief Scheme. For example, early opening of the Jubilee gates in anticipation of flooding around 18th December to lower the Thames to Summer levels might well have significantly reduced the amount and length of flooding downstream on 24th December- I wonder if computer modelling of such a scenario has taken place? A root and branch review of how and why such serious flooding occurred should be in the public domain. The EA must also make allowance for the Bulge/Surge affect when by-pass gates are





opened allowing this extra water to rejoin an already overloaded Thames downstream – this may have lasted up to five hours at Romney, and may have caused the river to overflow the banks. It is only after the Bulge/Surge has passed downstream can the EA correctly state that the volume of water is the same whether arriving via the Thames or Jubilee Rivers.

We are very concerned at EA's "one club" policy of installing short cuts parallel to the Thames to speed the flow of floodwater more quickly down to Teddington, where it will meet with incoming tides, possibly with unforeseen consequences. We believe that the whole of the Thames Catchment area should be involved in managing floodwaters by slowing and reducing flow-off, and the provision of temporary storage at peak flow times, with managed release when floods are subsiding. With the hot dry summers forecast for the future, that water could provide an important new source of water for both domestic and farming purposes.

I attach extracts from a 1947 Flood Review Report which was provided by David Murphy – in summary, it says that holding floodwaters, temporarily or otherwise upstream, to reduce flooding downstream, was too expensive and wouldn't work. This is the document which appears to form the basis of EA's current flood relief planning - we briefly discussed this at the meeting and challenge the logic of using a 68 year old document as the policy basis for a very much different world. The whole of the Thames Catchment area is radically changed, vast areas have been concreted and tarmacadamed over, populations outside London have expanded significantly, and crucially, modern earth moving equipment can dig holes and build banks at a rate that would have been





unimaginable in 1947/8. Even now, more people will be arriving with 5000+ new houses at Didcot, and Bicester is to become the first of a new batch of Garden cities. On top of all this, we have Climate Change to think about. At the very minimum, a radical rethink by EA is essential - starting right now. We know that a new reservoir for Steventon has been on the books for years - that might be a good starting point.

With regard to costs, the cost of putting flood relief measures in place in the Upper Thames is only a fraction of the costs of flood damage to properties, schools, hospitals the general infrastructure downstream – which in a worst case scenario could include parts of London..

We would be happy to meet EA Senior Management if required.

Yours sincerely, Brian Holder"

- 3. What are the priorities to reduce flood risks for Teddington and adjacent areas?
- 3.1 To keep the Thames Barrier in use and fully functional for as long as possible
- 3.2 Ensure that all householders and businesses in the flood risk areas are fully prepared by being on the emergency warning system and have had their properties made flood resistant as far as possible by following EA recommendations and installing the free modifications or the subsidised equipment available. Membership of local flood groups to be

These comments / discussions have been noted, and future changes should be considered / adopted into the strategy going forwards.





encouraged. 3.3 To get flood walls raised by XXmm to reduce overtopping upstream of Teddington Weir 3.4 To ensure that non- return flaps on Storm Drains are regularly checked and maintained 3.5 To ensure that planning permission for an experimental Hydro Scheme on Teddington Weir is not approved until all the other flood relief measures proposed by the EA are put in place and proven to work in a major flood situation (there are no comparable schemes anywhere) 3.6 To encourage the Environment Agency to re-think its "one club" policy of speeding floodwaters down towards Teddington through shortcuts to reduce upstream flooding, when the benefits of a joint approach involving temporary upstream storage, better management of land and flow-off, and re-introduction of dredging to maximize floodwater flow through the main river channels, have not been fully explored.

Happy to answer any further questions you might have.