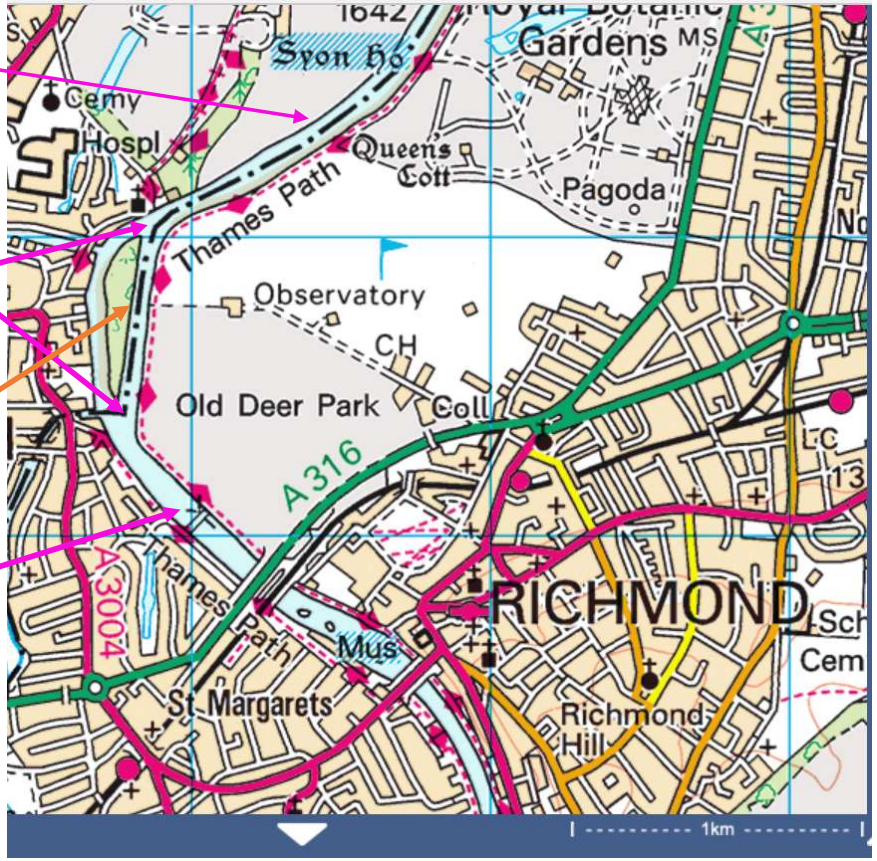
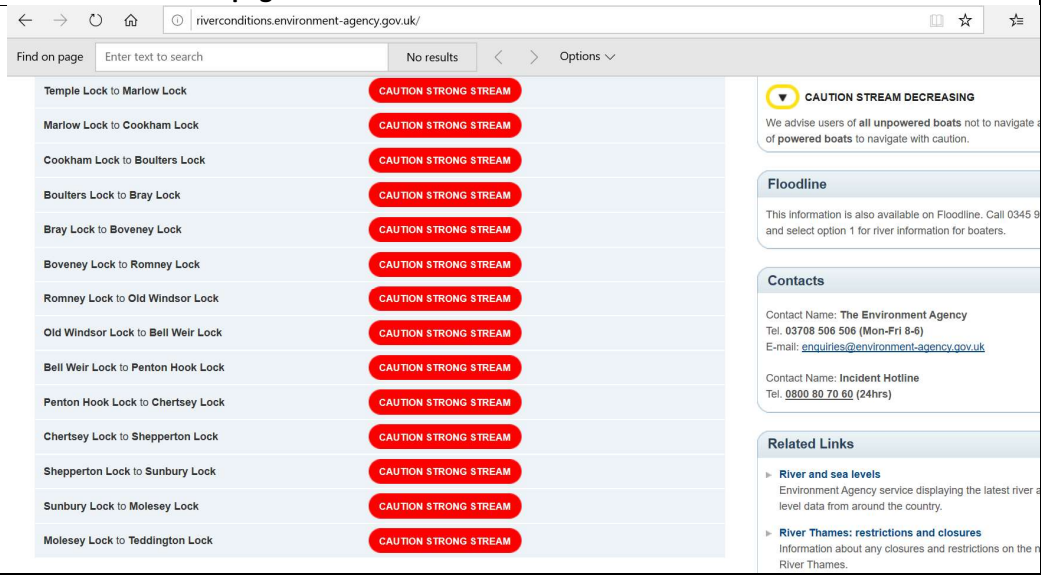
CKC Resources & Considerations when planning Thames paddles from Kew when we have extreme weather

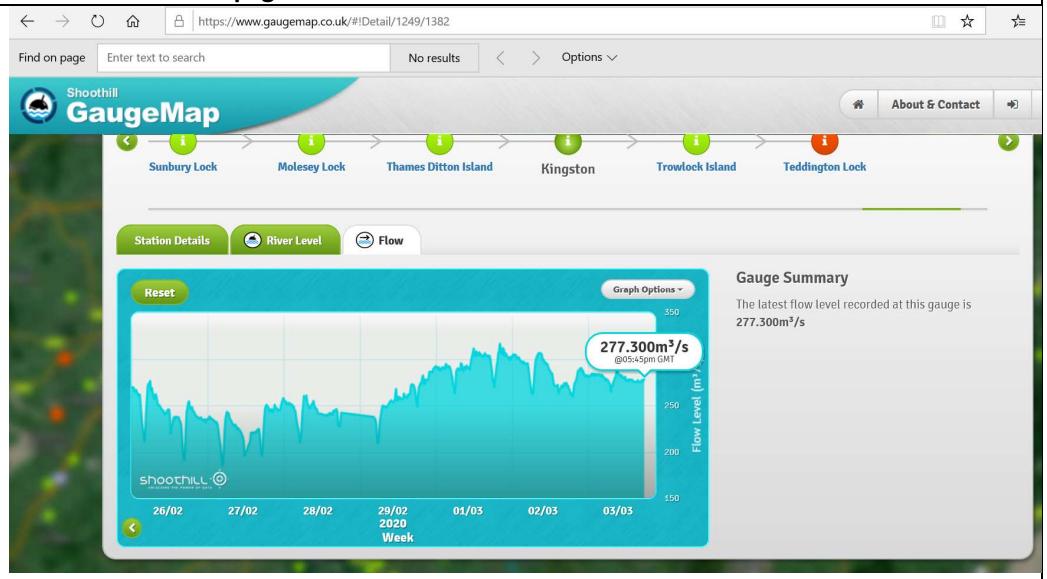
Key contextual considerations:		**Map**
1) Tides – are they close to neap or spring tides and at what stage of the tide is the paddle planned to occur?		
2) Wind – especially when paddling on exposed stretches of the Thames. E.g. paddling on Syon reach towards Richmond into a headwind from SW – will put the paddler directly into the headwind, because Syon reach is a long straight exposed section – so there is the possibility that small waves could build up. Also the section downstream of Hammersmith is exposed. If the water level is up, due to high-ish state of tide and/or flooding – then the paddler is more exposed, than at lower tide, when they will be paddling below the top of the river bank which can give some shelter.	Syon Reach (2) Faster flow around corners at both North and South end of Isleworth Aid (3 a) Upswelling from Mogden discharge pumps (6) Choppy water by the outlet from Richmond ½ lock. (5)	
3) Places where localised flow may increase. a) This can be around the outside of a bend – eg on the bend by the pink house by Isleworth (& London Apprentice pub), or the bend that is upstream of Isleworth Ait and downstream of Richmond lock. The caution is needed by the bend at the upstream end of Isleworth Ait to ensure kayakers are not pushed against the moored boats. b) Localised flow can also increase when water in the Thames is being funnelled into a smaller cross-section of the river. Ie when the tide drops then the channel behind the islands dries out, and then the		

water can no longer flow behind the islands. So all the water will need to flow down the main channel and will flow faster. At the point when the cross-section of the channel reduces significantly (e.g. upstream of Isleworth Ait when the river goes from being wide to all the water only being able to exit down the main channel at lower states of tide) – then the water will also speed up in that location.

4) Fluvial flow – ie quantity of water due to rainfall upstream in the catchment area of the Thames. The rest of this blog looks at this.
5) How the Richmond half-lock is being operated. When there is high fluvial flow through Richmond but not high enough that they just leave the gates open. What they do is adjust how low the gates go to regulate the fluvial flow and maintain a fixed level for Richmond. When the reading was 165m3/sec through Kingston in previous 12hours to a paddle the flow under the gates was extremely violent. Staying by the right/west bank by the rollers was quite difficult as a strong eddy was trying to pull kayakers towards the partially open gates. Water was very choppy and not a place to take beginners.
6) Caution can be needed when river levels are *low* – along the east side of Isleworth Ait where the Mogden sewage treatment plant has several discharge pumps coming up from the river bed. At low river levels you can see up-swelling above these discharge points.

Resources to help assess quantity of water & timing of HW/LW on Thames, & assessing river water quality

Information in the resource	Screen shot of Webpage or twitter
I) **What is the quantity of water flowing down the Thames.** There are two places which can give an indication of fluvial flow. a. Environment Agency from Lechlade to Teddington give boat users guidance. Webpage: riverconditions.environment-agency.gov.uk/ Red boxes say "Caution strong Stream"	

Information in the resource	Screen shot of Webpage or twitter
b. Environment Agency flow monitor at Kingston is updated live. https://www.gaugemap.co.uk/#!Detail/1249/1382 Kingston is above Richmond half lock & Teddington lock. Although the Environment Agency gathers information about the flow at Richmond & Teddington – this is not put into the public domain. When reading the graph - be careful to check the vertical scale on this graph – since it can re-size itself when you refresh the website. The flow through Kingston is a reliable indicator of fluvial flow for the sections of the Thames downstream of Kingston that CKC paddles on. Teddington lock has little to no control of fluvial flow when the river height is high because water can just pour over the top. The average flow through Teddington in the winter is approx 100m3/second. So if Kingston is showing flows more or ~290m3/second and this this coincides with an ebb (exiting out of the Thames) tide then it is probably unsuitable to paddle on. At lower flows consider the combined combination of state of the tide and wind when the paddle is due to happen.	 **Twitter** also can provide notifications Approximately every 12hours @riverlevel_1947 “Thames at Kingston” tweets the height of the river level, and flow in m3/sec

Information in the resource	Screen shot of Webpage or twitter
II) Timing of the tide PLA "live tide" overview – is available for both Chelsea and Richmond, which are either side of Kew. http://www.pla.co.uk/hydrographics/ltdetail.cfm?id=1021 This can give an indication as to when high or low tide are not happening as expected.	

Information in the resource	Screen shot of Webpage or twitter
III) **Dirty water discharges** After heavy rain Thames Water is unable to fully clean all the waste water at its Sewage Treatment works at Mogden & Hammersmith. Thames Combined Sewer Overflow @ThamesCSOAlerts twitter feed is the most useful resource since information is "tweeted" within an hour of discharge from Mogden. Whilst there is a significant quantity of dirty water in the Thames it would be wise not to take beginner paddlers out due to their higher risk of a capsize an accidental swallowing of Thames river water. (Thames Water gives no indication of the quantity nor the duration of its discharges.) See tweet for both Mogden & Hammersmith. It is also possible to be put on a "rower notification" email distribution list to be advised of dirty water discharges. In practice these emails did not come through every time twitter advised there was a discharge. The contact email address is: rower.notification@thameswater.co.uk @ThamesPoo also tweets notifications.