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MEREWAY SLUICE GATE		Issue: 0
		Date: 11/07/19

Contract: Mereway Sluice	
Issue details: 0	
Distribution: Site	
Originated by: B Dovey	Reviewed/authorised for issue: F Pizzardi

Steps and Procedure to manage/mitigate flooding at Mereway Sluice.

This document will assist and guide the site team to manage the site under a potential and flood condition or to mitigate damage in the lead up to such an event.

Background Information.

Mereway Sluice is an existing site/asset situated on the River Crane in Twickenhan, Middelsex (off Mereway Road, TW2 6RR).

The sluice is a single, automatic tilting weir gate of steel construction. It is 7.9m wide retaining some 1.77m HOW.

In additional to its ability to manage flow, a 600mm diameter concrete bypass pipe (~25m long) is present on the left bank of the sluice. This is fitted with 600mm diameter penstock (head side) to manage flow.

Scope of Works.

The purpose of the project is to replace the current tilting weir gate as it has reached the end of its working life in order to manage flow to avoid future flood risk due to failure.

Further works also include replacement of the drive and electrical control units, replacing water level sensors (and other associated M&E), removal and replacement of the access walkway and other associated (minor) civil works.

Control Measures.

Prior to the installation of the works, the site team will ensure that;

- The site is registered with the EA's Flood Forecasting System
- The site will notify the EA of this scheme such that the River Control Duty Officer's (RCDO) flood forecast is received.
- Monitor daily weather conditions and forecasts.

GOOD WORKS

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- Monitor long range weather conditions and forecasts (for key activities). If these are favourable then the works can continue or put on hold until conditions improve.

During Works.

The RCDO is responsible for flood forecasting on the Non Tidal Thames. If his/her forecasts indicate that the flow will remain normal then works can continue. If water levels are expected to rise then the extent will be confirmed from the model output. These will all be based on the closest gauging station for this area. **NOTE:** Site has not been given any gauge board readings to make assessments themselves on site. All level data has been provided by the Employer as per the WI date 5th June 2019, version A.

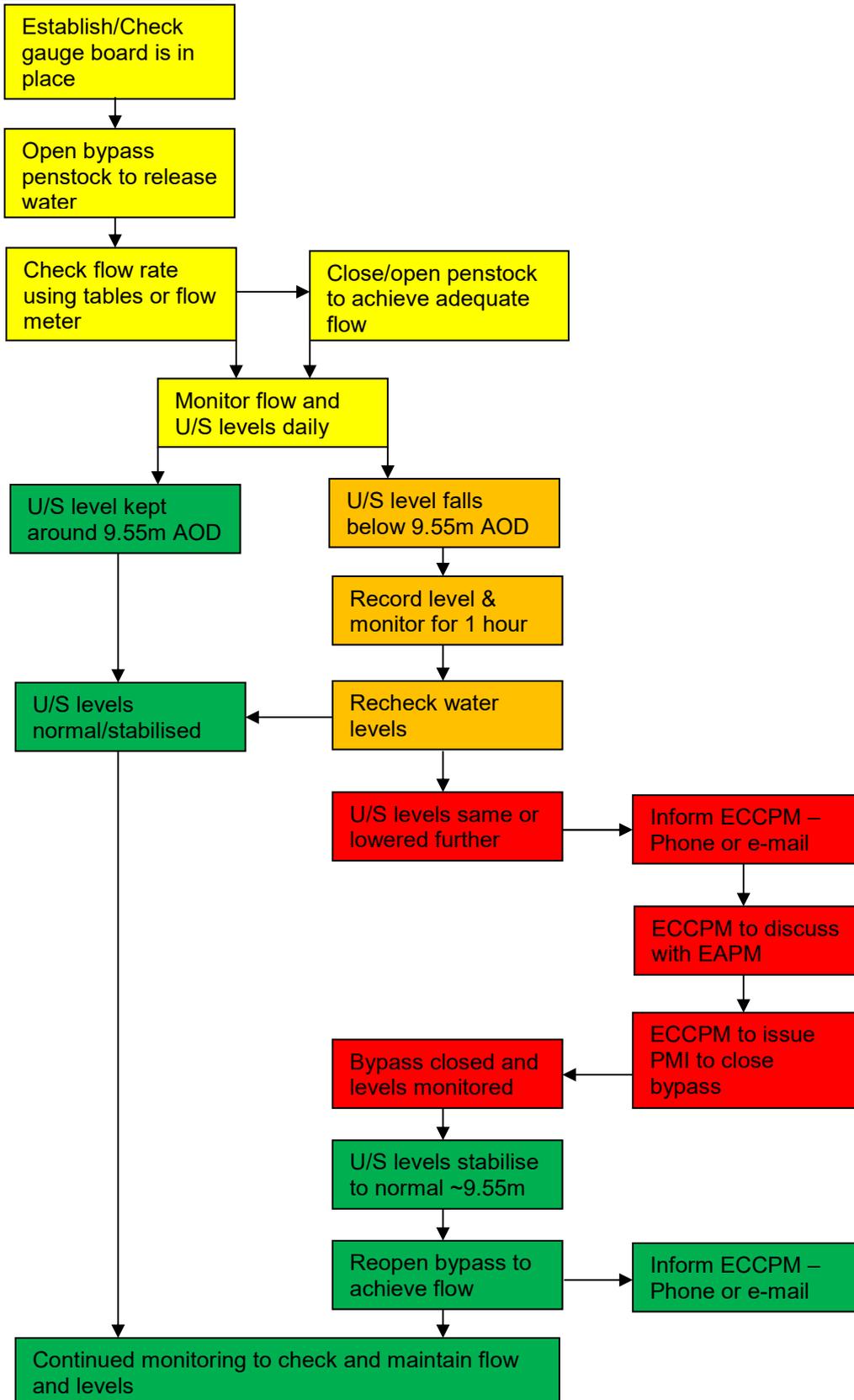
Flow Management.

- Flow management during the works will be required as per the following criteria;
- Min flow of 60 Litres/Sec to be passed/maintained (U/S to D/S) in the River Crane
 - Maintain U/S water level for abstraction. Target level to be 9.55m AOD. Critical level is 9.52m AOD.
 - Critical Flood Level (U/S) is 9.81m AOD.
 - Agreement is place to utilise the bypass pipe to maintain target flow U/S to D/S as needed.
 - As an alternative, flow calculations have confirmed that using 2 number 6" (silent) diesel pumps is sufficient to achieve that target flow as well.

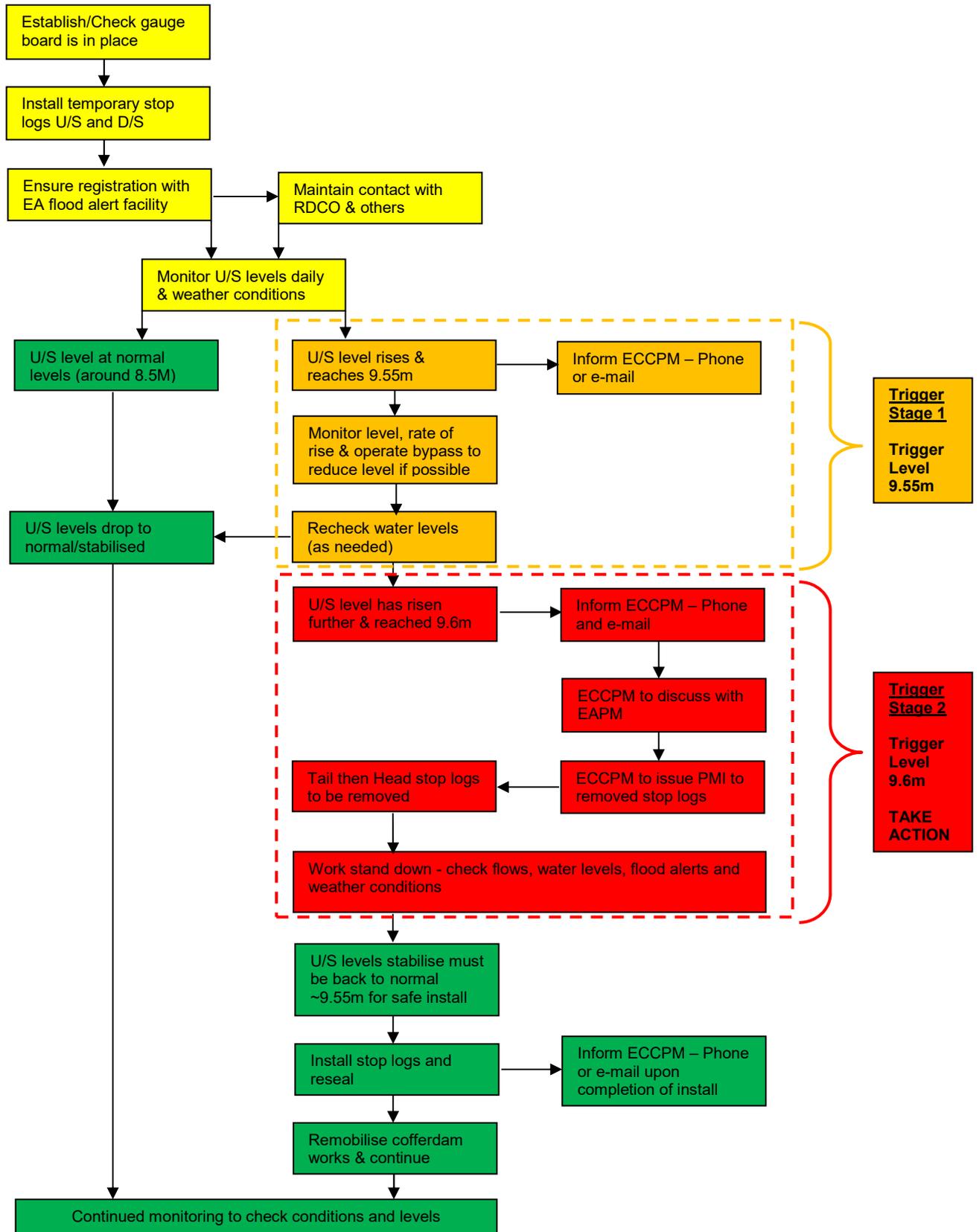
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Flow Management Procedure and Trigger Stages.

1. Bypass Flow (RAG).



2. Flooding and Stop Logs (RAG).



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Additional Outline Procedure Information.

This information relates to the above 2 procedure matrixes and their respective actions required;

- Personnel to be alerted of any action required and work to stand down if deemed unsafe to continue.
- Plant, tools and equipment to be removed, relocated and/or taken off site as deemed necessary in the interest of maintaining safety and preventing any pollution incident.
- If stood down due to flooding, the site/area will be reassessed by JCE Senior Management to ensure that conditions are adequate and safe to return to work.
- In conjunction with the above point, JCE carry out any addition works (once adequately instructed by the Client) in order to make good any abortive works and/or unsafe conditions so that work can continue, after an event.
- Please note that there are limitations to the removal of stop logs associated with water levels and flow. Stop logs will not/cannot be fully removed if the level exceeds that stated in the matrix above if the decision making process is not made as soon as possible. Naturally, this will be dependent on various physical factors as well such as the rate of rise and severity of the weather conditions. It should be noted that these (levels) are given for guidance and a mechanism to action any requirements. JCE cannot guarantee the full (or partial) removal of stop logs as this will be and must be governed by the ability to safely do so in any weather conditions. The intention is to act on any decision as swiftly as possible to allow as good an ability to achieve this as practically possible.

Contact Details.

The following are useful contact details as part of this protocol;

Name:	Position or Function:	Number:	E-mail:
EA Floodline		08459881188	
National Incident Communication Service		0800807076	
RCDO Thames		08001412698	Floodforecasting.reading@environment-agency.gov.uk
Brad Dovey	JCE Site Manager	07929027681	bdovey@jackson-civils.co.uk
TBC	ECCPM		
Luis Rico	EAPM	07484916747	Luis.Rico@environment-agency.gov.uk