

Area for flood passage:

Comparison @ Full 100 Yr + CC Water Level

Existing cross section (ignoring walkway) = 72.2 m^2

Screw system with Upstream inverts set to 1 mAOD - cross section during flood (screws lift clear of upper water)

 $= 102.4 \text{ m}^2 (42\% \text{ increase})$

Increase in flow area of 30.2 m²

Compare this to idea of five additional 3.5 m wide gates installed in the fixed weir.

If the new gates have an invert of 1 mAOD AND

if we assume the current fixed weir crest is the same as the target UWL (4.38 mAOD) - it will actually be lower

THEN

the additional flow area from these five gates = 59.15 m²

The proposed screw system provides nearly half of this cross section.

Comparison @ Bank Full

Existing cross section (ignoring walkway) = 28.2 m^2

Screw system with Upstream inverts set to 1 mAOD - cross section during flood (screws lift clear of upper water)

 $= 59.1 \text{ m}^2$

Increased cross section = 31 m^2 (109% increase)

Bank full estimated from topographic data along the bank immediately upstream of the weir on the Lensbury side of the river



Teddington - Cross Section for Flood - Comparison Drawing No: 202, V02

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