

Plas Farm Pico Hydro Scheme

Rectangular unrestricted NOTCH COMPENSATION FLOW BROAD CRESTED WEIR

| | | |
|--------------------------|----|--------------------------|
| Target Hands off Flow | | 2.3 lps |
| Discharge | Q | 0.0023 m ³ /s |
| Coefficient of discharge | Cd | 1.704 |
| Acceleration due gravity | g | 9.81 m/s |

| | | |
|---------------|--------------|--------------------------------|
| Depth*, d (m) | Width, w (m) | Discharge, Q m ³ /s |
| 0.044 | 0.150 | 0.00236 |

Formula
 $Q = C_d w d^{1.5}$ where C_d is 1.704

FLOW SPLIT **Unrestricted notch** BROAD CRESTED WEIR

The weir crest and the flow split crest are open notches and the Open notch discharge formula can be used to evaluate the flows.

Formula
 $Q = C_d w d^{1.5}$ where C_d is 1.704

| | | | | |
|------------------|---------------|--------------|--------------------------------|---------------------|
| | Depth*, d (m) | Width, w (m) | Discharge, Q m ³ /s | Proportion of Water |
| Coanda Notch | 0.050 | 0.500 | 0.010 | 70.0% |
| Flow Split Notch | 0.050 | 0.214 | 0.004 | 30.0% |

*Note - Depth varies depending on flow but is always the same for each notch as crest levels are all the same 411mAOD, the proportions always remain exactly the same and are not effected by changes in depth. Proportion of water is calculated by dividing the flow by the sum of both flows and converting to a precentage. Values are based to the nearest litre per second and millimetre.