

**NPI Name:** Ditch blocking - plastic piling dams (large)

**NPI Code:** DBL

**NPI Payment:** Year 1: £385.16 per dam

**NPI Aim(s):**

To facilitate remedial management of EFS(H) sites, such as moorland, lowland raised bog, fen and breeding wader sites by raising the water table and allowing the vegetation, particularly *Sphagnum* moss, to regenerate.

**Scheme applicability:**

Wider – EFS(W)  Higher – EFS(H)  Group – EFS(G)

**This NPI is:**

Permanent  Rotational

**NPI Description and Outcome:**

‘Ditch blocking - plastic piling dams (large)’ are eligible for ditches larger than 1 m - 2 m wide and deep where they will maintain and enhance the biodiversity value of EFS(H) sites and are included in the site specific Remedial Management Plan (ssRMP). This NPI will raise the water table back to natural levels and allow vegetation to regenerate and it will also facilitate implementation of the ssRMP. Ditch blocking can create habitat for breeding waders.

**Number Permitted:**

**Minimum** 1 **Maximum** Not Applicable\*

\* DAERA reserves the right to limit a Higher Level agreement value where it considers appropriate to ensure value for money.

## Requirements and Controls:

Code	Non-productive investment requirements (capital works)	Control type <sup>1</sup>		
		Admin	CwRS	OTSC
DBL1C	All 'Ditch blocking - plastic piling dams (large)' must be completed by the end of the Year 1 period.	✓		✓
DBL2C	New materials must be used for 'Ditch blocking - plastic piling dams (large)'.	✓		✓
DBL3C	'Ditch blocking - plastic piling dams (large)' must be constructed of impermeable plastic sheeting.	✓		✓
DBL4C	The claimed number of 'Ditch blocking - plastic piling dams (large)' must be installed in the correct location in the field(s) where they have been approved.	✓		✓
DBL5C	The 'Ditch blocking - plastic piling dams (large)' must be installed to the Specification outlined below.			✓
DBL6C	Field records must be kept detailing location, number, date(s) installed and Integrated Pest Management (IPM) requirements for each 'Ditch blocking - plastic piling dam (large)'.	✓		✓

<sup>1</sup> The possible control types for each requirement may be:

'Admin' – administrative checks, 'CwRS' – Control with Remote Sensing, 'OTSC' – On-the-Spot Check

### Specification:

- the 'Ditch blocking - plastic piling dams (large)' must be constructed wider than the channel;
- 'Ditch blocking - plastic piling dams (large)' must be constructed in box configuration;
- when installed, the top of the dams must be slightly higher than the ground level;
- 'Ditch blocking - plastic piling dams (large)' must be effective at containing water;
- a 'Ditch Blocking Plan', which will form part of the ssRMP, must be prepared for each application; and
- 'Ditch blocking - plastic piling dams (large)' must be installed as detailed in the ssRMP, for EFS(H) sites.

### Rivers Agency Consent:

Consent from Rivers Agency is required if the ditch blocking is to be carried out on a maintained watercourse. An application form for consent to carry out the work can be downloaded from the link below:

<https://www.infrastructure-ni.gov.uk/publications/schedule-6-application-consent-undertake-works-watercourse>

This permission and any accompanying conditions must be included in your application.

### **Loughs Agency permit:**

Within the Foyle and Carlingford areas, any in stream or bank works on rivers which may impact on the river bed material from the freshwater portion of any river may require a permit issued under Article 46 and 47 of the Foyle Fisheries Act (Northern Ireland) 1952. An application form and further information can be downloaded from the link below:  
<http://www.loughs-agency.org/application-for-section-4647-permit/>

This permit and any accompanying conditions must be included in your application, where applicable. In addition any such works will require Loughs Agency supervision/inspection.

### **Further Advice:**

If you intend to complete this NPI along a march boundary, you should ensure that you have fully discussed and agreed that you can carry out the option requirements and controls along the march boundary with the person who has control of the neighbouring land.

It is advisable to seek advice from a hydrologist for larger scale projects where a significant number of dams are to be installed on a site.

The intensity of damming required will depend on the flow of water in the ditch, the degree of slope and the amount of water held back by individual dams. On wider (more than 1 m - 2 m wide and deep) ditches, plastic piling dams without reinforcement or support will bow, slump or heave due to the weight of water. In addition, at the end of a long run of dams particularly those in peat (i.e. 20 dams or more), it is advisable to reinforce the last two dams to act as an insurance should any dams fail. Support consists of timber immediately behind the dam and fixed to the ground by stobs at either end. This is used where the dam face exposed to water is greater than 2 m. The purpose of the support is to reduce bowing of the dam structure.

Generally dams are placed 20 - 30 m apart. It is expected that the final water level from the lower dam will rise vertically half way up the next closest upstream dam. The final water level should be at the peat surface or no more than 20 cm below the surface.

If possible, select a location for your dam where the ditch narrows to form a pinch point. This provides a firmer footing for the dam and uses less material. Where ditches are running parallel, stagger the dam positions to increase the wetting effect on the surrounding peat. The wetting influence of each dam will extend sideways into the peat for up to 10 m. Piling should only affect the proposed site and should not cause drainage problems upstream or downstream.

As a guide, only one third of the plastic piling dam will be visible on completion. The total quantity of plastic piling required will be approximately three times the cross-sectional area of the ditch.

Machine damage can be reduced with the use of low pressure and appropriate machines.

Care must be taken to ensure that there is little or no damage to the site when constructing the dam.

Piling sections can be driven in using the hydraulic arm of an excavator or manually using a rubber maul.

Piling should start at the centre of the channel and work progressively outwards to the sides of the channel.

Regular maintenance checks should be carried out.

All health and safety guidelines should be adhered to when the 'Ditch blocking - plastic piling dam (large)' is being constructed. For further information on Health and Safety guidelines, please check the attached link to the Health and Safety Executive NI:  
<http://www.hseni.gov.uk/guidance/industries/agriculture-3-column.htm>