

SEA SCREENING STATEMENT

ARTERIAL DRAINAGE MAINTENANCE WORKS PROGRAMME & HIGH RISK CHANNEL DESIGNATION

In 2006, the OPW carried out an in-house initial screening of the Annual Arterial Drainage Maintenance Works Programme as attached. The initial conclusion by this in-house Screening was that an SEA is not required for the Annual Drainage Maintenance Works Programme 2006 and it was envisaged that this decision would also be applicable to future Annual Drainage Maintenance Works Programmes.

Following consultations with the EPA on this Screening, EPA opinion was that these works would meet the criteria for Likely Significant Impact as defined in the legislation particularly as the programme of activities may have significant effects on nature conservation and on fisheries or marine life. Having regard to the EPA's opinion in respect of likely environmental impact, OPW proposed to conduct an SEA for the Arterial Drainage Maintenance activities.

With the publication of the EU Floods Directive in 2007, OPW were appointed as the national Competent Authority for implementation of the same. In the intervening years, including further discussions with the EPA, OPW have considered strategies for effective and efficient SEA compliance for the national role out of the CFRAMs combined with multiple broader flood risk management activities. OPW have now commenced the role out of the national CFRAMs programme and these holistic management plans will be conducting an SEA. However, it is now decided that in recognition that it will take a number of years before substantial coverage of the State is achieved by a series of CFRAMS, it is proposed to proceed with an SEA for the Drainage Maintenance and Designation activities alone. This position will be reviewed in 2015.

It is envisaged that the SEA process will assist in formalising an overarching and strategic environmental framework to both the ongoing Drainage Maintenance and Designation activities and assist in the ongoing improvements in environmental performance.

SCREENING FOR STRATEGIC ENVIRONMENTAL ASSESSMENT

ANNUAL ARTERIAL DRAINAGE MAINTENANCE WORKS PROGRAMME

Legislative Requirement:

The SEA Directive 2001/42/EC was transposed into Irish legislation under the European Communities (Environmental Assessment of certain Plans and Programmes) Regulations 2004 (SI No. 435). These regulations came into effect in July 2004 and in short, stipulate for one of the following options for all public sector plans and programmes (P/P):

1. Complete an SEA process for all P/Ps that are deemed mandatory under the regulations.
2. Complete a screening exercise for all other P/Ps to decide if an SEA is required.

The annual Arterial Drainage Maintenance Works Programme is not considered mandatory in accordance with the 2004 Regulations, hence this screening exercise has been carried out.

Arterial Drainage Maintenance Service

The functions of the OPW are managed under seven Business Units with Engineering Services being one of those units. The Arterial Drainage Maintenance Service is a section within this Business Unit and its primary function is to implement the OPW's obligations in regard to arterial drainage maintenance. The applicable Schemes include the Arterial Drainage Schemes that were carried out by the State between 1945 and 1995 under the Arterial Drainage Act, 1945 and the more recent Flood Relief Schemes carried out under the Arterial Drainage (Amendment) Act, 1995. Under this legislation, the OPW have a statutory obligation to maintain the scheme channels and associated structures in proper repair and effective condition.

Administrative headquarters for these operations is 51 Stephens Green, Dublin 2 with the role out of the maintenance works being managed through three Drainage Maintenance Regions:

East Region, Trim, Co. Meath

West Region, Headford, Co. Galway

South West Region, Mungret, Co. Limerick

Annual Arterial Drainage Maintenance Works Programme

A programme of works is prepared annually by each of the three Regional Offices which lists by Scheme, the channels, embankments, bridges, sluices and other structures on which maintenance works are proposed for the year. The overall operational targets are extracted from these three individual reports and are summarised to form the Annual Drainage Maintenance Works Programme. This is presented as a section within the Engineering Services Annual Business Plan.

Attached are single page extracts from the following documents:

1. Engineering Services Business Plan 2005 - East Region's Annual Drainage Maintenance Work Programme Summary.
2. West Region's Annual Drainage Maintenance Work Programme 2005

Reference Publications

This Screening process has been carried out with reference to:

- (a) SEA Directive (2001/42/EEC)
- (b) European Communities (Environmental Assessment of certain Plans and Programmes) Regulations, 2004

- (c) P. Scott & P. Marsden, 2003. *Development of Strategic Environmental Assessment (SEA) Methodologies for Plans and Programmes in Ireland. Synthesis Report.* Published by the EPA

Screening Decision Tree

With reference to Scott & Marsden (2003), in applying the decision tree for the pre-screening check, the following is concluded:

Step 1

a) *Is the P/P subject to preparation and/or adoption by a national, regional or local authority?*

or

b) *Preparation by an authority for adoption through a legislative procedure by Parliament or Government?*

- The Works Programme is included in the Engineering Services Annual Business Plan which is adopted by the OPWs Management Advisory Committee which includes the Commissioners and Chairman. However, the Annual Drainage Maintenance Works Programme is not adopted as an individual plan or programme.
- The Maintenance Programme is not prepared for adoption through a legislative procedure by Government.

Notwithstanding the fact that the Annual Maintenance Programme is screened out in Step 1, in the interest of clarification, Step 2 was also reviewed as follows:

Step 2

Is the P/P required by legislative, regulatory or administrative provisions?

- There is a legislative obligation for the OPW to carry out drainage maintenance works but there is no known specific legislative or regulatory requirement to draw up an annual programme of works. The criteria of an *administrative provision* is of a less defined nature but is interpreted as encompassing any formal administrative requirements prescribed by other adopted policy or strategies. The formulation of the Annual Drainage Maintenance Works Programme has no formal administrative requirement but in essence, is a project management tool that has been developed within the Arterial Drainage Maintenance Section over time. Maintenance operations are generally of a cyclic nature and the programme's primary function is to set-out and track operational progress. In more recent years, the detailed listing of channels scheduled for maintenance are being presented with environmental information such as flagging the presence of SACs, SPAs or NHAs. This is both to facilitate more informed discussions with environmental stakeholders and make available this information to operational staff.

Conclusion

- An SEA is not required for the Annual Drainage Maintenance Works Programme 2006.
- It is envisaged that this decision will also be applicable to future Annual Drainage Maintenance Works Programmes unless there are significant changes to the nature of this programme.

Related Background Information

Other relevant SEAs

A new National Flood Policy was adopted by Government in 2004 and the OPW will be the lead agency in implementing this policy. A key component of this policy is the creation of Catchment Flood Risk Management Plans for the State which will take an overview of the flood risk in a catchment and identify methods to be used to reduce or manage the same. These plans will be in a position to take a strategic overview of a catchment and consider alternative methods of reducing flood risk which may include requirements for an increase or decrease in drainage maintenance operations for certain areas. This type of plan is seen as a hierarchy to works plans such as the Annual Drainage Maintenance Works Programme and as such is more akin to the objective of the SEA Directive. Currently it is envisaged that these Catchment Flood Risk Management Plans will be carrying out an SEA.

Arterial Drainage Maintenance & the Environment

Notwithstanding the fact that Arterial Drainage Maintenance Works are not subject to an SEA, these operations are carried out, utilising a number of environmental mitigation measures combined with a range of good work practices as follows:

1. Liaison with Statutory Bodies

In 2004 a framework for communicating with the Fisheries and the National Parks & Wildlife Service (NPWS) was agreed and in summary consists of Drainage Regions forwarding the Annual Maintenance Works Programme and meeting with the stakeholders to discuss and refine the programme of works. Where feasible, particular notice is given in respect of SACs, SPAs or NHAs.

Observations or comments on practical measures to either mitigate possible environmental impacts or exploit enhancement opportunities are integrated into the maintenance works. While the current communication framework offers adequate positive interaction, it is intended to continuously develop improved consultation protocols at all staff levels with both the Fisheries and NPWS.

2. Environmental Research

The Drainage Maintenance Service in partnership with the Central Fisheries Board (CFB) have established a research programme called the Environmental Drainage Maintenance (EDM) programme. It has been developed over the 1990's and has ongoing research on a number of aspects varying from assessing the impacts of maintenance operations on various fish species through to the effects of densely matted instream vegetation on the waterway's biology. A primary objective of the programme is to identify methods of operation which are both environmentally sensitive and effective from an arterial drainage maintenance viewpoint.

3. Environmental Training

Emanating from this EDM programme, an environmentally friendly approach to maintenance has been formulated which embraces ten alterations to work practices. All frontline machine operational staff received formal training from the CFB on the same. As an ongoing process, the CFB audit the standard of implementation and carry out site visits to assist with on-site coaching and training of frontline staff.

In addition, the CFB carry out pre-maintenance walk over surveys on selected channel segments where habitat enhancement opportunities are identified and the elements for an environmentally sensitive approach are detailed and recorded. Typically this type survey includes a representative from the CFB,

the relevant Regional Fishery Board, OPW technical staff or foreman and occasionally accompanied by a Conservation Ranger. This type of on-site forum also offers the opportunity to train staff on the implementation of the various environmental practices.

4. Environmental Work Practices

Four alterations to traditional work practises are deemed to have a significant mitigating effect on possible environmental impacts of maintenance works:

- a) Environmental Drainage Maintenance practices
- b) Annual Works Programme to accommodate spawning
- c) Fishery habitat enhancement
- d) Upgraded mechanical fleet

a) Environmental Drainage Maintenance practices

Ten alterations to work practices have been developed under the EDM research programme which range from leaving banks untouched where practicable, managing trees and vegetation, managing berms, tossing of spawning gravel (outside spawning season to remove entrapped silts) and enhancement works such as digging pools and placing of random boulders at the request of the Fishery Boards as appropriate. The relevant Guidance Notes are held by all maintenance machine operation gangs and are used as an on-site reference guide.

b) Annual Works Programme to accommodate spawning

Drainage Regions and relevant Fisheries Boards discuss and revise the annual works programme to accommodate the timing of works in spawning channels. Over the last few years, the typical annual work programme has changed substantially to reflect this requirement. In some salmonid fisheries, up to 60% of channels or part of channels are maintained within particular time frames to minimise impacts.

c) Fishery habitat enhancement

Fisheries Boards liaise with operational staff to coordinate operations on the ground to the benefit of fish stocks. This could involve the timely construction of in-channel fishery improvements to coincide with maintenance operations when extra resources would be on site or in some cases, the removal of existing stocks by electro-fishing where works could impact on the same. In addition, the OPW have in partnership with the Fishery Boards constructed Tourism Angling Measures (TAM) projects since the conception of these measures in 1997. These types of projects have a direct positive impact on the habitat and further habitat enhancements are being implemented in partnership between the Drainage Maintenance Service, Regional Fisheries Board and local Angling Clubs.

d) Upgraded mechanical fleet

Traditional maintenance primarily utilised Dragline excavators which had a number of environmentally related disadvantages primarily due to their cumbersome nature and difficulty in accurately controlling excavations. Draglines were replaced by Hydraulic Excavators by 1999 which has reversed many of the disadvantages. Excavators are in excellent working order and all use longlife engine oil and biodegradable hydraulic oil. The excavators are appropriate for the ground conditions and offer a high level of control to the drivers, hence a more selective approach to material removal can be implemented including the ability to alter the channel profile if desirable.

A new form of weed cutting excavator bucket has recently being introduced into maintenance operations. This equipment allows the excavator to remove instream vegetation without disturbance to the channel bed and is proving very useful where spawning salmonid channels suffer from prolific

weed growth. Similarly, a recent introduction of hydraulic shears offers excavators greater flexibility in selective and clean removal of woody vegetation. In situations where deemed suitable, excavators can reach over trees located along the top of the bank and remove the trees or limbs at lower level which impinge on channel capacity.

5. Environmental Management

An Environment Section was established within the Drainage Maintenance Service in 2003. The development of this section reflects the level of commitment of the Drainage Maintenance Service towards the environment and it will ensure the long-term integration of environmental performance and drainage maintenance.

GIS systems are foreseen as a significant tool to manage environmental information. The Drainage Maintenance Service has recently digitised the original drainage scheme maps which will be of benefit to all stakeholders and will aid the rapid and accurate transfer of geographical environmental data.

6. Screening of Natura 2000 Sites for Impacts of Arterial Drainage Maintenance Operations

The OPW have completed a report entitled *Screening of Natura 2000 Sites for Impacts of Arterial Drainage Maintenance Operations* which will be published shortly. This report is to assist the OPW in ensuring compliance of Arterial Drainage Maintenance operations with the European Communities (Natural Habitat) Regulations, 1997 by setting out a strategic approach to managing the requirement for environmental assessments in European Sites. This report reviews all the SACs and SPAs that overlap with drainage maintenance operations and identifies conservation aspects that warrant further consideration. The objective is to target resources on a more focused list of environmental assessments through a coordinated nationwide approach.

This report has recommended a series of assessments and it is envisaged that these will be carried out as Ecological Impact Assessments (EcIA) in the form of a multi annual programme of studies. To date the following EcIAs have commenced:

- The CFB in consultation with the Regional Fisheries Boards have carried out an EcIA on Salmon in freshwater. It is presently with the NPWS for their comments.
- An EcIA on the Raised Bog and its associated habitats was undertaken by an Ecological Consultant and is presently nearing completion.
- EcIAs on both the White-Clawed Crayfish (*Austropotamobius Pallipes*) and the three Lamprey species Brook Lamprey (*Lampetra Planeri*), River Lamprey (*Lampetra Fluviatilis*) and Sea Lamprey (*Petromyzon Marinus*) has also commenced. The CFB have been contracted to carry out these assessments which will take the form of a two year study.

There are a number of other EcIAs also scheduled for completion. The conservation aspects in question range from Otter (*Lutra Lutra*), Kingfisher (*Alcedo atthis*) through to the various Fen habitats. A number of these further studies will be engaged annually on an ongoing basis until all EcIAs have been completed.

Extract of:

**Engineering Services Business Plan 2005
East Region's Annual Drainage Maintenance Work Programme Summary**

Main Channels

Scheme	1st. Qtr. (m)	2nd. Qtr. (m)	3rd. Qtr. (m)	4th. Qtr. (m)	Total (m)
Boyne	1400	5600	7700	0	14700
Brosna	4800	8000	9600	4800	27200
Glyde & Dee	0	0	4800	2400	7200
Inny	4200	4200	4200	4200	16800
Monaghan	0	0	0	0	0
South East	4800	1600	800	4800	12000
Total	9000	16200	19200	13400	57800

Minor Channels

Scheme	1st Qtr (m)	2nd Qtr (m)	3rd Qtr (m)	4th Qtr (m)	Total (m)
Boyne	102600	88200	81000	102600	374400
Brosna	27000	19800	16200	27000	90000
Glyde & Dee	27000	27000	14400	23400	91800
Inny	37800	37800	37800	37800	151200
Monaghan Blackwater	21600	10800	7200	21600	61200
South East	10800	7200	3600	10800	32400
Other	7200	7200	0	0	14400
Total	244800	205200	163800	234000	847800

Extract of:

West Region's Annual Drainage Maintenance Work Programme 2005

Scheme	Corrib Clare	Machine/ Gang	5/153					
<i>CHANNEL</i>	<i>Section</i>	<i>Remarks</i>	<i>OS Map</i>	<i>Remarks</i>	<i>SPA NHA SAC</i>	<i>From</i>	<i>To</i>	<i>SAC NHA SPA</i>
F.772/3						660	930	
F.772/4						0	470	
F.772/6 on C3/47/4	1					0	1,200	
F.772/6 on C3/47/4	2					1,200	2,400	
C3/47/4/1						0	400	
C3/51	1		17			0	2,200	
F.669						0	760	
C3/51/1			17			0	650	
C3/51/2			17			0	1,050	
C3/55	1		17			0	1,500	
C3/55	2		17			1,500	3,675	
C3/55/1			17			0	2,820	
F.774						0	330	
C3/55/1/1			17			0	500	
C3/26	1		G16	fishery channel		0	1,300	
C3/26	2		G16			1,300	3,400	
C3/26	3		G16			3,400	6,500	
SG29/5						0	920	
SG30/1			G17& 30			0	475	
SG30/3			G30	0/00 to 2/00 discharge into lavally		0	900	√ √
C3/60	1		18			0	2,500	
C3/60	2		18			2,500	5,200	
C3/34/1			G4			0	2,130	
F.636						0	550	