DRAFT Exemption risk assessment

Installation of a temporary floating structure in a Main River

The Environment Agency produces risk assessments for all new and amended exemptions. These list the potential risks and specify the measures required to manage them.

The assessment of each risk comprises the following components:

- information about the source, pathway and receptors – and the potential harm to those receptors
- an assessment of the level of risk and justification of that assessment
- actions for managing the risk (through exemption limits and conditions) and a residual risk rating after managing it

Risk management involves breaking or limiting the source-pathway-receptor linkage to reduce the risk. If we set minimum distances we explain the basis of the distances, for example by modelling.

We control the residual risk (after risk management) through compliance assessment or the use of our enforcement powers.

If you need to check the meaning of any terms we have used in the context of this risk assessment, see the ‘Explanation of terms’ section.

This risk assessment is based on the scope of the exemption and associated limits and conditions:

Exemption limits and conditions

a. The floating structure is installed for no more than 8 weeks and removed immediately if, within that period, it is no longer required;

b. The floating structure shall be no longer than 20 metres in length

c. The floating structure shall occupy no more than 20% of the width of the channel

d. The floating structure is located no less than 100 metres from any other floating structure.

e. The activity shall not be carried out within 200 metres radius of a European designated nature conservation site, SSSI or National Nature Reserve;

f. The activity shall not be carried out within 50 metres of a flood defence structure or river control work or drainage work

DRAFT

g. The activity is not installed within 100 metres of any non-agricultural buildings that are within the floodplain of a main river

h. The floating structure must be securely attached to the bank at all times;

i. The works must not disturb the bed and banks of the main river beyond the necessary minimum, or cause any pollution, including release of suspended solids in the water.

j. The works must not use vehicles or wheeled or tracked machinery on the bed or bank of the main river.

k. All reasonable steps are taken to protect aquatic plants and aquatic animals found around the floating structure;

l. Except where it is unsafe to do so, debris lodged against the floating structure is removed within 24 hours

m. The operator shall register with the Environment Agency to receive flood alerts for the location of the activities and: (a) take action to ensure that there is no increased flood risk to third parties as a result of carrying out the activities; (b) remove the structure within 4 hours of a flood alert being issued, or when requested by the Environment Agency.

1. Risks to local population and property

1.1 Flood risk

We have assessed the likelihood of increased flood risk on local people and businesses and damage to property and infrastructure.

Judgement of risk

We have judged the:

- likelihood of the hazard affecting receptors as medium
- overall severity of potential consequences as medium
- overall risk rating as medium

The reasons for giving the activity this rating are because:

If the floating structure was not secured properly then they can float downstream, damaging flood assets and the riverbanks, and in some river catchments there is a risk they become stuck in flood assets such as sluice gates or tidal pointing doors. This would mean that the way we operate assets in flood events would not work and lead to flood of land and properties which would normally be protected.

DRAFT

The longer the structure is in place the greater the risk of a flood event occurring becomes and with it the risk that the structure could come loose. High flood levels could cause other debris to collide with the floating structure and cause it to become loose.

During the installation of the floating structure the bed and banks of the river could become damaged due to the use of vehicles or wheeled or tracked machinery. This damage could lead to an increase in flood risk and environmental damage due to habitat damage or silt disturbance.

Managing the risk

The following limits and conditions will normally manage the risk, and we rate it as very low.

1. The floating structure shall be no longer than 20m in length
2. The floating structure shall occupy no more than 20% of the width of the channel
3. The floating structure is installed for no more than 8 weeks and removed immediately if, within that period, it is no longer required;
4. The activity shall not be carried out within 50 metres of a flood defence structure or river control work or drainage work
5. The activity is not installed within 100 metres of any non-agricultural buildings that are within the floodplain of a main river
6. The floating structure is permanently and securely attached to the bank;
7. The floating structure is located no less than 100 metres from any other floating structure.
8. The works must not use vehicles or wheeled or tracked machinery on the bed or bank of the main river.
9. Except where it is unsafe to do so, debris lodged against the floating structure is removed within 24 hours
10. The operator shall register with the Environment Agency to receive flood alerts for the location of the activities and: (a) take action to ensure that there is no increased flood risk to third parties as a result of carrying out the activities; (b) remove the structure within 4 hours of a flood alert being issued, or when requested by the Environment Agency.

DRAFT

2. Risks to protected habitats, species and the historic environment

Protected habitats and the historic environment include:

- special areas of conservation
- special protection areas
- Ramsar wetland areas
- sites of special scientific interest
- Marine Conservation Zones
- Water Framework Directive status
- Scheduled Monuments

Protected habitats and species can be at risk from any source and by any pathway.

We have assessed the potential harm to protected habitats, species and the historic environment as:

- toxic contamination
- nutrient enrichment
- disturbance
- smothering
- loss or damage to habitat or species
- physical damage to designated sites
- ability of river to form and sustain habitat
- increased sediment load
- deterioration of ecological status
- deterioration of high morphology status

Judgement of risk

We have judged the:

- likelihood of the hazard affecting receptors to be medium
- the overall severity of potential consequence to be medium
- overall risk rating to be medium

The reason for giving the activity this rating is because emissions to air, water or deposition onto land may cause harm to and deterioration of protected habitat sites.

Managing the risk

The following conditions will normally manage the risk, and we rate it as very low.

1. The activities shall not be carried out within 200m radius of a European designated nature conservation site, SSSI or National Nature Reserve;

DRAFT

2. The works must not disturb the bed and banks of the main river beyond the necessary minimum, or cause any pollution, including release of suspended solids in the water.

3. All reasonable steps are taken to protect aquatic plants and aquatic animals found around the floating structure

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Explanation of terms

Likelihood of exposure

This is the likelihood of the receptors being exposed to the hazard. The meanings of the definitions are:

- high – exposure is probable – direct exposure is likely with no or few barriers between the hazard source and the receptor
- medium – exposure may be probable – feasible exposure is possible as the barriers to exposure are less controllable
- low – exposure is unlikely – several barriers exist between the hazard source and receptor to reduce exposure
- very low – exposure is very unlikely – effective, multiple barriers are in place to reduce exposure

Overall magnitude of potential consequence

This is the severity of the consequence if the hazard is realised and may cause actual or potential harm.

This will have a high, medium, low or very low rating using attributes and scaling to consider 'harm'.

Risk rating

We determine the risk rating by combining the likelihood of exposure with the magnitude of the potential consequences.

We assess these ratings to be:

- high risk – very likely to occur, severe consequences, requires additional assessment and active management
- medium risk – may occur, moderate consequences, requires additional assessment and may need active management or monitoring (or both)
- low and very low risks – unlikely to occur, minor consequences but will require periodic review

DRAFT