

This Factsheet provides a short summary of the results of our environmental studies.

More information is available in the Non-Technical Summary of the Environmental Report.

Introduction

To understand what the potential environmental effects of submarine dismantling could be, we have undertaken a Strategic Environmental Assessment (SEA) in accordance with the relevant legislation. For further details about SEA, see the box overleaf.

The SEA has considered how both the overall process of submarine dismantling, and the specific options that SDP is considering, could impact on the environment. The results have been fed into our assessments and have helped shape our proposals. The SEA has also recommended ways to minimise those impacts or to avoid them altogether. All the SEA reports are available on the project website.

What are the environmental effects of submarine dismantling?

The first stage of the SEA confirmed that using existing nuclear sites (those that have a nuclear licence or authorisation) would have far fewer environmental impacts than developing a new site, since most of the nuclear facilities would be in place, as would skilled staff and suitable transport routes.

The SEA then considered the potential effects that the submarine dismantling process could have - from developing facilities, removing the radioactive waste, transporting and recycling the submarine hulls, to eventually decommissioning the facilities.

The key findings are that:

- Dismantling activities are not expected to create radioactivity levels that could harm the environment or the health of the community. This is largely due to the controls that would be required by law, and because the radioactive materials are mainly in the form of solid (and therefore immobile) metals. For more information see the **factsheet Radioactivity and Health**.

- Storing the Reactor Compartment (RC) intact would minimise the occupational radiation dose to workers, while marginally higher doses would be expected with the Reactor Pressure Vessel (RPV) and Packaged Waste options. However, occupational doses would be well within legal limits for all options.
- Environmental effects are largely linked to the amount of new development. Maximum use should be made, therefore, of existing facilities, staff and standard industrial processes.
- Of the options for removing the radioactive material from the submarines, only separating and storing the intact RC has any significant environmental effects. This is primarily due to the very large facility that would be needed to store the 27 RCs.
- The physical difficulty of transporting RCs and the separated front and rear sections of the submarines by sea – particularly in Plymouth Sound, which has relatively shallow water – also has potential environmental effects. These could be significant if additional dredging were needed.
- Of the two initial dismantling sites, removing radioactive materials at Rosyth performs marginally better environmentally than at Devonport. This is largely due to the proximity of growing residential areas and protected wildlife habitats at Devonport.
- Dismantling will create a large amount of waste in the short-term but it is estimated that around 90% of the material in each submarine can be recycled.
- SDP will also have positive environmental effects such as the economic impact of the financial investment in the area and the fact that, in the long term, it will remove the legacy of laid-up submarines in the UK.



The SEA makes a number of recommendations to minimise the environmental impacts of submarine dismantling.

These are to:

- Avoid any activities likely to damage protected habitats and commercial fisheries;
- Minimise the size of new development to limit the loss of land, the use of natural resources and to reduce the risk of pollution and flood risk;
- Use environmental management systems throughout the project to minimise emissions to air, water or land and any disturbance to people or wildlife;
- Ensure that government standards for use of sustainable materials and efficient building design are met during construction and operations;
- Minimise and manage transport by road to reduce disturbance and congestion; and
- Maximise employment and training opportunities for the local community where possible.

How have we considered these issues in our proposals?

Where the environmental impacts differed significantly between the options, this has informed our assessments of the options. In this way, environmental issues have been considered in forming the proposals that we are now putting forward for your views.

The proposals that the MOD has put forward for public consultation have been found to have **no likely significant environmental effects**.

What is SEA?

SEA is a legally-defined process (under the Assessment of Plans and Programmes Regulations 2004) to identify the potential environmental effects of a strategic plan or programme, so that they can be considered and minimised while the options are being developed and major decisions are made.

The purposes of SEA are to:

- Identify and assess the potentially significant environmental effects of the options;
- Enable the public to comment on the potential effects and to suggest improvements;
- Ensure that the potential effects are properly considered throughout project planning and before major decisions are made;
- Suggest measures to avoid, reduce or manage damaging environmental impacts;
- Enhance beneficial effects.

SEA is a five-stage process, starting with screening and scoping, followed by the assessment, reporting, public consultation and subsequent monitoring.

The effects of the SDP have been assessed, at a generic level, across fourteen environmental and social categories: biodiversity; air, water and land quality; energy and climate; flooding and coastal change; transport; waste management, land use and materials; through to landscape; cultural heritage; noise; health and wellbeing; and effects on people and communities.

What happens next?

After the public consultation, the public's views, including the responses to the Environmental Report, will be considered and used to inform the MOD's decisions.

The SEA will be updated and any necessary further assessments undertaken.

When the initial dismantling site(s) have been selected, detailed site-specific evaluations will be required, by law, as part of the process of applying for planning permissions and approvals from regulators. These will include Environmental Impact Assessment and, if European-protected habitats are likely to be affected, Habitats Regulations Assessment. These also have statutory requirements for public consultation.

All submarine dismantling activities will be subject to an environmental permit system. As part of this, work will be closely monitored by the Environment Agency or Scottish Environment Protection Agency, as well as by the Office for Nuclear Regulation (part of the Health and Safety executive).