

Trawsfynydd Site Stakeholder Group

Briefing Pack for Site End-State Project

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1 Introduction

In November 2005, the NDA wrote to each Site Stakeholder Group requesting that the Site End State and End Point be discussed to determine the process to be adopted in the consulting member organisations prior to making the recommendation in December 2006. A Guidance Note was produced to provide a basis for Site Stakeholder Groups (SSGs) to collate the views of the local community around their site and to make a recommendation to the NDA for the end state and end point for the site concerned.

From the Guidance Note, a process was developed for the Trawsfynydd Site and this briefing pack collates all the information that is believed to be necessary to enable the consultation to proceed.

Each of the 20 NDA sites currently has an end state in mind for planning and costing purposes. However, these do not necessarily take advantage of the more flexible approach available following the Government's recent decommissioning policy review, whereby it is not necessarily expected that sites should be restored to green field status. As was stated in the draft NDA Strategy, it is clear that local stakeholders will have a view on site end states and end points.

2 Content

This briefing pack contains relevant extracts from: the NDA Strategy published in March 2006 and contributions from Gwynedd Council in relation to the Social, Community and Economic Strategy for the area; and the Snowdonia National Park Authority in relation to the Environmental and Planning Strategy for the area including any relevant constraints and assumptions.

3 Scope of Site End-State and End Point Project

For the purposes of this note the following definitions are assumed:

- The 'end state' of a site is the physical condition at the point when the NDA has finished its business.
- The 'end point' of a site is the time at which this 'end state' is reached.
- The site is defined as the land owned by the Nuclear Decommissioning Authority, to the North of Llyn Trawsfynydd and West of the A470, inclusive of the area of the Licensed Nuclear Site. The sub-station areas leased to the National Grid Company and to Scottish Power (Manweb) are specifically excluded.

A range of possible site end states exist:

- At one end of the range is a pristine green field site on which there is no radiological or hazardous waste or contaminated ground and which can be released for unrestricted re-use.
- At the other end of the range is a site which has such a significant amount of contaminated land that it needs to remain under institutional control for the foreseeable future with the ground contamination monitored and managed in situ to protect the environment, and with restricted access to protect the public.
- In between these two extremes lies a range of possible end states for restricted industrial or commercial re-use such as a Science Park or new electricity generating plant.

The chosen end state for each site must be consistent with both national and local policy on the potential re-use of sites. This could mean that the end state for a given site may have to change in the future in line with a revised policy.

To achieve the agreed end state for a given site:

- all radiological low level and intermediate level waste must be conditioned and either disposed of or removed from the site to an alternative location pending disposal.
- all other wastes must be removed from the site and the ground remediated to a condition consistent with the agreed end state.

4 Overview of the Trawsfynydd Decommissioning Site

Trawsfynydd Power Station is located at Trawsfynydd in Gwynedd, North Wales and has an area of 15 hectares covered by the nuclear site licence. It started electricity generation in 1965 and ceased generating in 1991. Trawsfynydd Nuclear Licensed Site is licensed to Magnox Electric Ltd. The site is situated in the Snowdonia National Park near to a number of SSSI, NNRs and SACs. The NDA also has designated powers to manage and operate the Maentwrog hydro-electric power station, which was opened in 1928 and is situated near the site.

Current plans are to delicense the site for reuse in future recreational purposes to reflect its location within the Snowdonia National Park.

2007	Completion of ILW store for storage of processed operational waste
2011	Demolition of ponds complex
2012	Enters care and maintenance
2040	Packaged ILW transported to repository
2046	Demolition of waste store in line with local planning permissions and public enquiry findings
2088	Start of final site clearance
2096	Final site clearance and closure

5 Extracts from the NDA Strategy (March 2006)

5.1 Decommissioning Strategy

5.1.1 Context

Before the Government announced the outcome of the decommissioning policy review in 2004, it was assumed that most sites could eventually be released for unrestricted use. However, the review suggested there could be a variety of end states, ranging from indefinite institutional control (retaining the site within the nuclear licensing regime) to unrestricted use.

5.1.2 Issue

For each site there is currently an agreed end state. However, these may not reflect the more flexible arrangements now available - which could provide opportunities to reduce costs or deliver other benefits.

5.1.3 The NDA approach

A further review of site end states and end dates is being undertaken in 2006 through a consultation exercise involving the Site Stakeholder Groups, the regulators, Site Licence Companies and other interested stakeholders. There are advantages to this approach, including:

- achieving a clear direction and end date for decommissioning and clean-up activities on each site;
- more certainty around milestones and budgets;
- the opportunity to put contracts with incentive fees in place around delivery of agreed milestones and final end state;
- a clearer focus on the nature and timing of socio-economic support and development needs; and
- an improved outcome and better value for money for taxpayers.

A key consideration in the determination of site end states will be the long-term management of any radioactive or non-radioactive contaminated land present on the site. Where the revised end states involve radioactive or non-radioactive material being left on the site, we and the regulators will need to be satisfied that this does not present an unacceptable risk to people or the environment, now or in the future.

This consultation will be supported and informed by:

- clear information on the current status of sites and easily understood descriptions of the potential end states available;
- the steps necessary to achieve end states;
- information on the likely timescales for achieving end states;
- the potential safety, security, environmental and socio-economic implications;
- the need to ensure consistency with statutory requirements for periodic safety reviews.

We expect that, for some sites, the process will be relatively straightforward and that we can reach agreement promptly. For more complex sites the process may take longer but we expect the exercise to be completed in time for the outcomes to be recorded in our next Strategy. The consensus we seek would be confirmed in a publicly available document. In some cases it may be possible only to reach consensus on an interim end state during the planned review, which does not foreclose options for the final end state, but which none the less allows decommissioning and clean-up to progress unhindered.

We recognise that, given the long timescales involved in the decommissioning of some sites, periodic reviews of end states will need to be undertaken to confirm that the preferred approach is still valid in light of any new information or developments in Government policy or the regulatory framework. In particular, future reviews of end states will need to take account of the developing understanding of any contaminated land present on the site and the potential threats posed by coastal erosion and climate change.

5.2 *Contaminated Land*

5.2.1 *Context*

There are varying degrees of radiological and chemical contamination at all of our sites which, in some cases, extends beyond the site boundary. We have an indication of the quantities of land that have been contaminated at each of our sites and we are obtaining additional information to provide a fuller understanding to inform our decision-making. Extensive ground contamination studies have been carried out on the Trawsfynydd Site and the extent and mechanisms of ground contamination transport are well understood. In the future some additional work is required in areas which are currently inaccessible. An assessment of the radiological risks associated with ground contamination has been carried out and we concluded that the contamination does not currently represent an immediate risk to the workforce, the public or the environment. It is our current opinion that the contaminated ground will not represent a risk to the public at a future date and consequently no remedial work is required. However, it has to be demonstrated that this represents the Best Practicable Environmental Option (BPEO) and that it does not compromise the eventual de-licensing of the site. [In order to de license the site it has to be demonstrated that there is no (in practice, less than 1: 1,000,000 risk of death per year) residual radiological risk]

5.2.2 *Issue*

At Sellafield, it has been estimated that there may be as many as 20 million cubic metres of contaminated land, caused mainly by leaks from legacy and disposal facilities. Dounreay, Springfields and Harwell also have significant quantities of radioactive or non-radioactive contaminated land, although not on the same scale as Sellafield. Lower levels of radioactive and non-radioactive contamination are present at the Magnox Sites although, in some cases, these remain significant. At Trawsfynydd the best estimate of the total volume of contaminated ground is 5,500 m³ of this approximately 500 m³ is considered to be significant. The contaminated ground is located in the vicinity of the Ponds structure and is approximately 4 m below the current ground level.

Identifying the extent of radioactive and non-radioactive contamination and the future risks it may pose to the workforce, public and environment is a complex process. It requires painstaking technical work to establish the nature and extent of contamination, as well as the potential for it to migrate to locations where it could affect people or the environment.

For some sites, it will take a number of years to develop appropriate remediation plans that represent the Best Practical Environmental Option (BPEO) for managing contaminated land in the long-term. However this work Trawsfynydd Site is well advanced with a number of studies already completed. The current discussion regarding End State will form part of the BPEO consideration and will contribute to the ultimate strategy to be adopted for the management of radiological ground contamination for the Site.

5.2.3 *The NDA approach*

We are requiring our contractors to provide additional information on contaminated land to increase our understanding of the extent and nature of it and the potential risk to people and the environment. This will enable us to identify specific areas where further characterisation or remediation is required.

We will use this information to work with our contractors and the regulators to accelerate the characterisation of contaminated land. We will then ensure that fully costed and robust long-term management plans for contaminated land are developed, including the creation and maintenance of appropriate records.

The development of long-term contaminated land management plans will need to be based upon an assessment of how contaminated land could potentially affect people and the environment. The key advantages and disadvantages of alternative approaches will be evaluated in order to identify the BPEO.

6 Current End-State Definition for Trawsfynydd

Following the end of Care & Maintenance, it is planned to move into the final decommissioning phase of the lifecycle and complete the removal of the remaining buildings on the site. On completion of this phase, the site will be cleared of all remaining buildings, landscaped and will be released from its license and made available for future recreational purposes to the local community. The period for this phase will be from 2088 to 2098 and is known as the Final Site Clearance phase.

All buildings will be removed and any remaining structures punctured to assist drainage. Following the clearance of all structures, the site will be subjected to extensive radioactivity surveys to confirm that no unacceptable radioactivity remains on or below

the site and that the site can be delicensed; thus allowing the site to be made available for future recreational purposes.

Once this has been confirmed, the entire site will be regraded and landscaped.

At this point in time (July 2008) the lifecycle of the Trawsfynydd site will be complete.

7 Current Known Constraints for Trawsfynydd

No significant constraints, although there exists a planning consent for the construction of an Intermediate Level Waste Store and height reduction of the Reactor Buildings to create Safestores.

Note the following;

- There is a requirement to demolish the ILW Store within 3 years of a National Repository becoming available for the receipt of the stored ILW packages.
- Some areas of the site are contaminated (refer above) resulting in slightly elevated liquid radiological discharges from the site.
- An area located on the north side of the site has been used as a Licensed asbestos disposal site for the burial of limited quantities of asbestos waste which were generated during operation. [This disposal stopped in 1990 and the License was handed in]
- Part of the site is licensed under the provisions of the Nuclear Installations Act 1965 (as amended) by the Health and Safety Executive. This area is delineated by a palisade fence and notices posted at all access points informing the public that they are entering a Licensed Nuclear Site. This area is known as the Licensed Site. All activities within the Licensed Site are subject to the provisions of the NIA 1965 (as amended) and to the conditions of the Nuclear Site License. All activities and operations within the Licensed Site are subject to regulation by the Nuclear Installations Inspectorate (NII); this is inclusive of some activities outside the Licensed Site which may have an impact upon the operation of the Site. The discharge of all radioactive material (solid, liquid and gaseous) from the Licensed Site is subject to an Authorisation issued by the Environment Agency under the provisions of the Radioactive Substances Act 1993 and to regulation by the Environment Agency.

8 Briefing from Gwynedd Council

The following has been prepared by Gwynedd Council's Economy and Regeneration Service at the request of BNFL Commercial for inclusion in the Trawsfynydd Site Stakeholder Group's *Briefing Pack for Site End-State Project*. The Council was requested to prepare a short outline of the social, community and economic strategy for the area:

For number years Gwynedd has been innovative in its efforts to promote, facilitate and support the economic, social and environmental regeneration of local communities.

Gwynedd is a patchwork of communities and areas which have developed their unique characters primarily as a result of economic activity over a number of centuries. There are large rural and agricultural areas as well as post-industrial areas, such as the slate valleys, and costal communities dependant upon tourism and the fishing industry. There are also urban areas which operate as administrative and service centres as well as a University city which is home to advanced technological developments as well as serving as the primary retail and healthcare centre for the county.

The variety in the character of Gwynedd, its community foundations; its natural environment and outstanding landscapes, along with, the Welsh language; the native culture and a tradition of co-operation between communities are among the county's greatest strengths. However, Gwynedd also faces a number of challenges:

- ensuring growth and prosperity are evenly distributed
- addressing inequality and social-exclusion within and between communities
- responding to structural change in Gwynedd's traditional economic sectors
- developing a confident, skilful and flexible workforce
- raising the quality of employment in Gwynedd and address the shortfall in average household incomes
- responding to changing demographic patterns, namely the increase in the number of older residents and out migration within younger generations, with measures to promote a better age balance to sustain the viability of communities
- responding to deterioration in the physical environment of town centres and villages and addressing the issue of vacant / idle buildings within communities
- meeting the local demand for homes, addressing the high numbers of empty houses in the county and ensuring that suitable and affordable housing is available
- effectively and efficiently serving peripheral communities distant from service centres
- maintaining and sustaining the rich natural environment of the county
- maintaining and building upon Gwynedd's distinctive character, capitalising upon the county's unique culture and the Welsh language

8.1 Gwynedd Community Strategy: Gwynedd Together

Gwynedd Together is a statutory document developed by a broad partnership of public, voluntary and community organisations as well as the business sector and the wider public. The strategy aims to co-ordinate activity across organisations and all other policies and strategies reflect its content¹.

8.2 Gwynedd Regeneration Framework

Gwynedd Regeneration Framework is currently under development. The first part of the Framework, *Gwynedd Regeneration Strategy*, aims to develop a cohesive approach to community regeneration in Gwynedd. The Strategy proposes greater integration of activity among partner organisations and recommends the prioritisation of effort both geographically, on the basis of need and opportunity, and thematically, to:

- Affordable housing
- Children and young people
- Skills
- Distribution of growth and prosperity
- Entrepreneurship
- Language and culture
- Gwynedd in work (reduction of economic inactivity)

The second part of establishing Gwynedd Regeneration Framework will involve the development of eight *Area Regeneration Plans*, as a means of adapting the thematic priorities to the needs of individual communities and working with communities to identify particular issues and suitable responses. Following a pilot exercise, the *Area Regeneration Plans* will be developed over a twelve month period.

Manager: Regeneration Programmes Unit

240406

¹See Internet URL http://www.gwynedd.gov.uk/gwy_doc.asp?cat=3512&doc=12826

9 Briefing from the Snowdonia National Park Authority

Snowdonia National Park Authority is a single purpose local authority established by the Environment Act 1995 with the following statutory purposes:

- To conserve and enhance the natural beauty, wildlife and cultural heritage; and
- To promote opportunities for the understanding and enjoyment of the special qualities of the (National) Park by the public.

The Act goes on to say that in pursuing National Park Purposes the National Park Authority shall seek to foster the economic and social well being of local communities within the National Park but without incurring significant expenditure in doing so and shall for that purpose co-operate with local authorities and public bodies whose functions include the promotion of economic and social development within the area of the National Park.

Additionally under the Environment Act 1995 the Authority is the local planning authority for the whole of the National Park.

The Authority is responsible for the production of the National Park Management Plan, Local Development Plan and for the determination of planning applications.

9.1 Current Planning Policy

Adopted in 1999, the Eryri Local Plan, in conjunction with the Gwynedd Structure Plan, is the adopted development plan for the National Park. It provides a set of detailed planning policy statements which inform decisions about applications for planning permission.

9.2 Planning Consent

Planning Consent has been granted, following the call in of the application and its consideration at a public local inquiry, for the Intermediate Level Waste Store and two safe store buildings. As a major application raising issues of more than local importance, consent was granted by Welsh Assembly Government and the Department for Trade and Industry and was conditional on subsequent approval of materials by the National Park Authority. The National Park Authority has a continuing role throughout the decommissioning to ensure that this work proceeds with respect for the environment, the community and the economy and in compliance with the approved plans.

9.3 Commitment to deliver new policies

Snowdonia National Park Authority is preparing the Snowdonia National Park Management Plan and Local Development Plan. The Authority has committed to incorporating the two plan preparation process in order to achieve a cohesive, joined up approach to policy making within Snowdonia; this will include a shared vision for the future of Snowdonia, improved plan quality and better dialogue with organisations and the community.

The Authority anticipates publication of draft plans in autumn 2007, and expects to publish an adopted National Park Management Plan in early 2008 and, following independent examination, to publish an adopted local Development Plan in autumn 2009. As part of the combined process the Authority is committed to involving residents, service users, key stakeholders and partners in meaningful dialogue which will improve policy making and make it faster and more responsive to change. It is envisaged that as part of this work we will work with NDA Stakeholder Group members to ensure that proposals for the future of the site respect the National Park context and economic and community interests.

9.4 The Snowdonia National Park Management Plan

The National Park Management Plan is the over-arching strategic document for the National Park – central to the future of the Park.

The Plan will look at all the management issues affecting Snowdonia. This does not only mean the environment, but also the importance of lifestyles, heritage, culture, local traditions, and the quality experiences created by this area's natural assets. It will set out to provide a rounded view of the future management of Snowdonia, a view which is environmentally responsible, economically viable and socially equitable.

The National Park Authority shares responsibility for the management of the National Park with many other organisations, including British Nuclear Fuels Ltd.

The role of the National Park Authority is to bring together the many different responsibilities, to seek agreements on actions between organisations, businesses and the community and to secure actions compatible with national park purposes. For this reason, a wide variety of people and organisations need to be involved in preparing and implementing the management plan.

9.5 Local Development Plan

The Local Development Plan will build on national and regional policy to provide the development strategy and policy framework within which provision is made for the development and conservation needs of the National Park for a fifteen-year period, from 2008 up to the year 2023. Various background reports and other technical data will help inform the local development plan.

10 Outline Programme for the Project

The current proposed programme is outlined below.

	What	Who	When
1.	Collate inputs:		2006
1.1	Site Life Time Plan, assumptions and consents relating to end state	British Nuclear Group	March-April
1.2	Environmental and Planning Strategy including any relevant constraints and assumptions	Snowdonia National Park Authority	March-April
1.3	Social, Community and Economic Strategy for the area	Gwynedd Council	March-April
1.4	Regulatory aspects	NII, EA, OCNS	March-April
2.	Option Development:		
2.1	Produce appropriate briefing document for organisations	SSG Secretariat	End April
2.2	Approve briefing document	SSG Sub-Committee*	End April
2.3	Facilitate option development by Community and Town Councils; other SSG member-organisations; Schools and College; other public organisations. Use awareness sessions, end-state project, and final workshops attended by SSG sub-committee members to receive feedback from groups directly.	SSG Sub-Committee supported by SSG Secretariat	May-July
3.	Option Assessment		
3.1	Collate and summarise options from community groups into an Option Assessment Report	SSG Secretariat	August-Mid-September
3.2	SWOT Analysis of options against Life Time Plan and local Strategies and develop a range of credible options for public consultation	SSG Sub-Committee	Mid September
3.3	Prepare public consultation exhibition material	SSG Secretariat	Mid-End September
4.	Public Consultation		
4.1	Share options and provide public opportunity to comment on and discuss the options presented – road shows to local towns and villages and semi-permanent exhibition in	SSG Sub-Committee members supported by SSG Secretariat	October to Early November

What	Who	When
Visitor Centre. Feedback to be collected on voting cards given to people signing in to the exhibition (option order of preference and any comments)		
5. Develop Preferred Option		
5.1 Review Feedback and recommend preferred option	SSG Sub-Committee	Late November
5.2 Presentation of process, feedback, findings and preferred option to the full SSG for approval	SSG Sub-Committee	Early December
5.3 Make recommendation to NDA	SSG Chairman on behalf of the SSG	December