

- Site boundary
- Existing tree to be removed to enable re-grading of storage bunds
- Proposed area of grass seeding
- Proposed timber post and strained wire fence
- Proposed timber post and rail fence
- Topographic survey data not available. Level information taken from historic drawing 'Existing Site Character Figure 4 A'

OILFIELD RESTORATION
Decommissioning, Restoration and Aftercare
Restoration is defined within National Planning Policy Framework (NPPF) to mean "operations associated with the winning and working of minerals and which are designed to return the area to an acceptable environmental condition, whether for the resumption of the former land use or for a new use".
The NPPF requires applicants to provide "a landscape strategy, restoration conditions and aftercare schemes as appropriate" and: 37. "To demonstrate that a site can be reclaimed to an acceptable standard and after-use, the applicant is advised to prepare, at the outset, a working plan which includes restoration proposals... 40. For after-uses which involve some form of plant growth (e.g. for agriculture, forestry or amenity including some forms of nature conservation), the plan will usually involve a number of key stages:
i. stripping of soils and soil-making materials and either their storage or their direct replacement (i.e. 'restoration') on another part of the site;
ii. storage and replacement of overburden;
iii. achieving the landscape and landform objectives for the site, including filling operations if required, following mineral extraction;
iv. restoration, including soil placement, relief of compaction and provision of surface features;
v. aftercare.
Since the Storrington oil field site is in active use this restoration plan provides information in respect of the latter three stages, as necessary to discharge Planning Condition 5.

- Restoration activities shall broadly involve the following sequence of works:
1. DECOMMISSIONING - To comprise the decommissioning of plant pipe work; removal of site fixtures and plants; disconnection of services; well abandonment; removal of well site and other built surfaces; site cleansing; ground sampling and treatment of remaining materials.
 2. VEGETATION CLEARANCE
 3. GROUND PREPARATIONS AND REPLACEMENT OF STORED MATERIALS
 4. RESTORATION OF FIELD BOUNDARIES
 5. RESTORATION OF AGRICULTURAL GRASSLAND
 6. 5 YEAR AFTERCARE PERIOD WORKS

All decommissioning activities shall be undertaken by, or on behalf, of IGAS Energy. The restoration of the landscape as set out within this plan shall relate to activities 2-6, above. Details of these are set out below:

2. VEGETATION CLEARANCE
All trees identified on the plan for removal, and any subsequently established shrubs within the area to be restored to agriculture, are to be felled by a qualified arboriculturalist. All felling works are to be undertaken during the dormant season and outside of the bird nesting season (avoid mid-Feb-Sept inclusive). All mature trees shall be checked for bat roosts in any cavities, before arboricultural works are carried out. Any bat roosts shall be reported to the client and no works shall be carried out on any tree in which bat roosts are located without further written instructions from a suitably qualified ecologist. The inspection for bat roosts and any subsequent action thereon must be carried out by appropriately licensed personnel.

3. GROUND PREPARATIONS AND REPLACEMENT OF STORED MATERIALS
Following the removal of all the site plant, site surfacing, services and affected vegetation areas for re-seeding identified on the plan shall be ripped, using a ripping tine or subsoil plough. The minimum depth of treatment shall be 450 mm. The spacing between the tine furrows shall be close enough to cause the uplifting and fracturing of the soil throughout the profile to the minimum treated depth and shall be determined by the soil type and conditions and the type of subsoiler used. Approximate spacings shall be taken as 600mm. Re-grade subsoil material across the site area to form naturally flowing contours in keeping with the adjacent land profile (generally level). Rip again and remove all stone or other imported material thus exposed to an approved licensed waste management site. Backfill redundant ditches using on-site materials.
Re-spread soil materials from soil storage bunds by loose tipping and grading over the site area, to produce smooth flowing contours across the site boundaries, and provide a minimum topsoil cover of 150mm. If necessary, import soil or ameliorants of a compatible type, to make up subsoil and topsoil depths.
Final preparations of soils shall ensure that top 50 mm of all soil is reduced to a tilth suitable for final shaping with a grading blade (particle size 10 mm and below). All undesirable material brought to the surface including stones larger than 50 mm in any dimension, roots, tufts of grass and foreign matter is to be removed off site. When material is reasonably dry and workable it shall be graded level in keeping with the natural profile of the adjacent off site land. Once material has been spread and/or graded, the area shall not be traversed by machinery or used for storage purposes.

4. RESTORATION OF FIELD BOUNDARIES
Following decommissioning remove all remaining boundary fences identified on the plan. Install new boundary fences identified on the plan. Typical construction details are provided here for reference.

5. RESTORATION OF AGRICULTURAL GRASSLAND
Grass seed shall be sown during the period 1 March to 31 May or 1 September to 31 October. Immediately prior to sowing the upper 50 mm of soil shall be reduced to a fine tilth by use of a chain harrow or other suitable plant. If required by the land owner, fertiliser or other soil ameliorants shall be evenly incorporated into the upper 50 mm of soil during final cultivations.
Grass seed shall comply with BS 4428 and shall be a tested mixture. Certificates of germination and purity obtained from an Official Seed Testing Station not more than six months prior to sowing shall be provided to the client before sowing, together with the names of the varieties used in the mixture. The information on seed certificates and seed bag labels shall correspond.
Sowing shall be carried out by evenly distributing the seed at the rate specified for each mixture below.
Sowing shall be immediately followed by lightly raking the surface of the soil to cover the seeds, by use of a chain harrow or other suitable plant.
The seeding shall be repeated as necessary until an evenly distributed dense sward is established over the seeded area. The Contractor shall allow for establishment maintenance of all grass areas in accordance for the first 12 months of the aftercare period until this has been achieved. Establishment shall be regarded as achieved when at least 80% of quadrat sub-divisions are recorded as 'filled' when tested in accordance with Annex A3 of BS 3969.
Following seeding the area shall be first cut to a height of 50mm when the grass reaches a height of 100mm. Subsequent cuts shall be undertaken as necessary for the initial 12 month establishment period of the 5 year aftercare period, whenever the grass reaches a height of 100mm.

GRASS SEED MIXTURE A
British Seed Houses "A25 Agricultural Reinstatement Mix", or equivalent to landowner's approval.

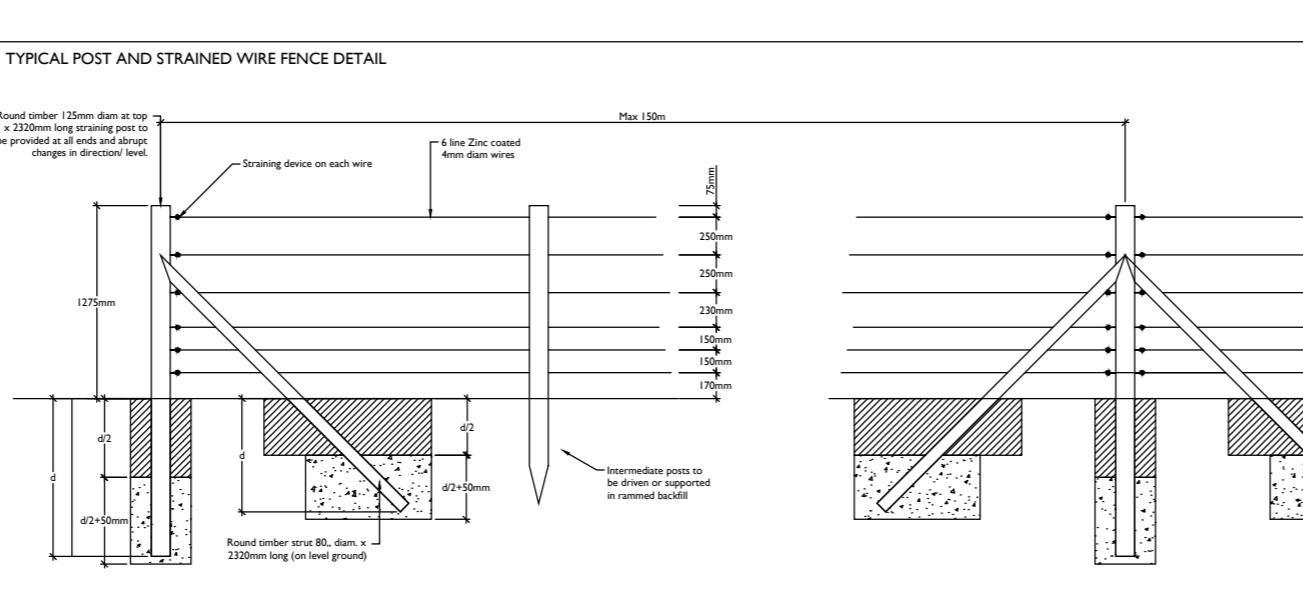
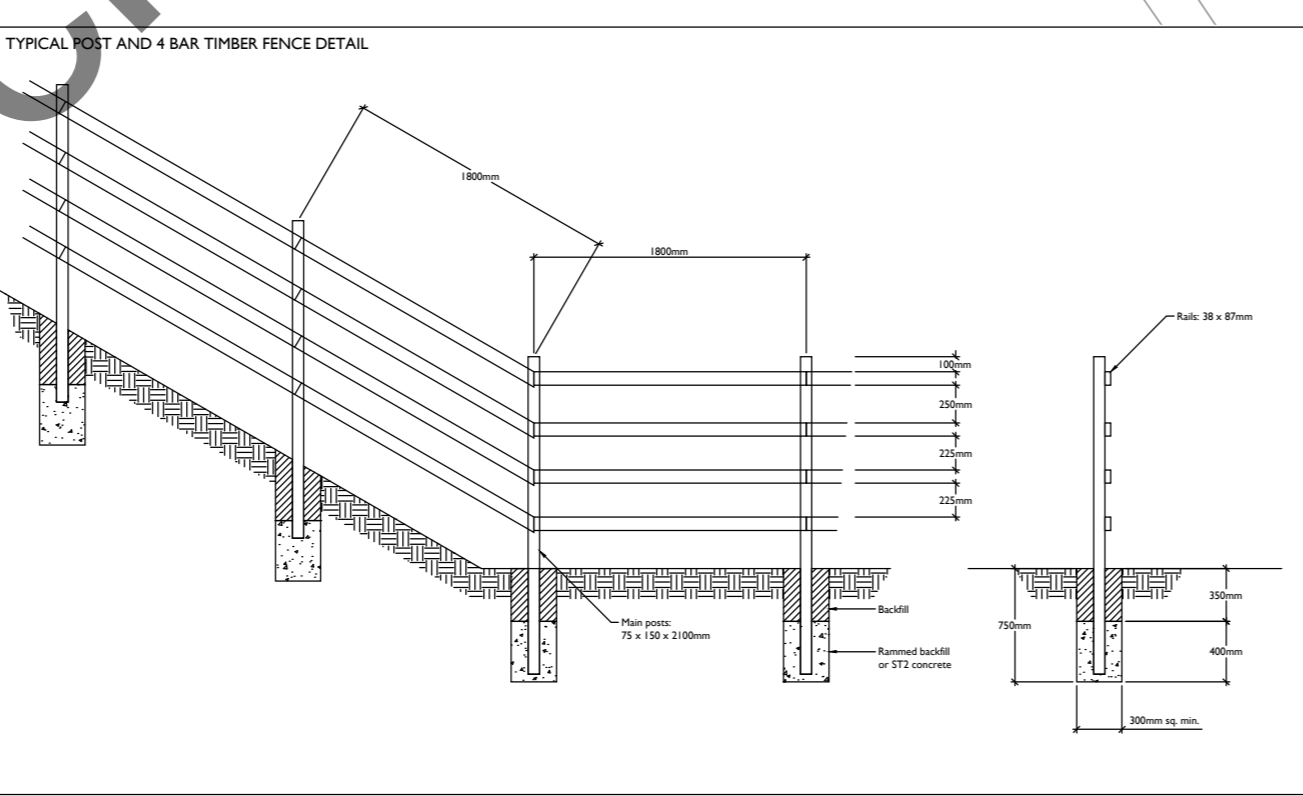
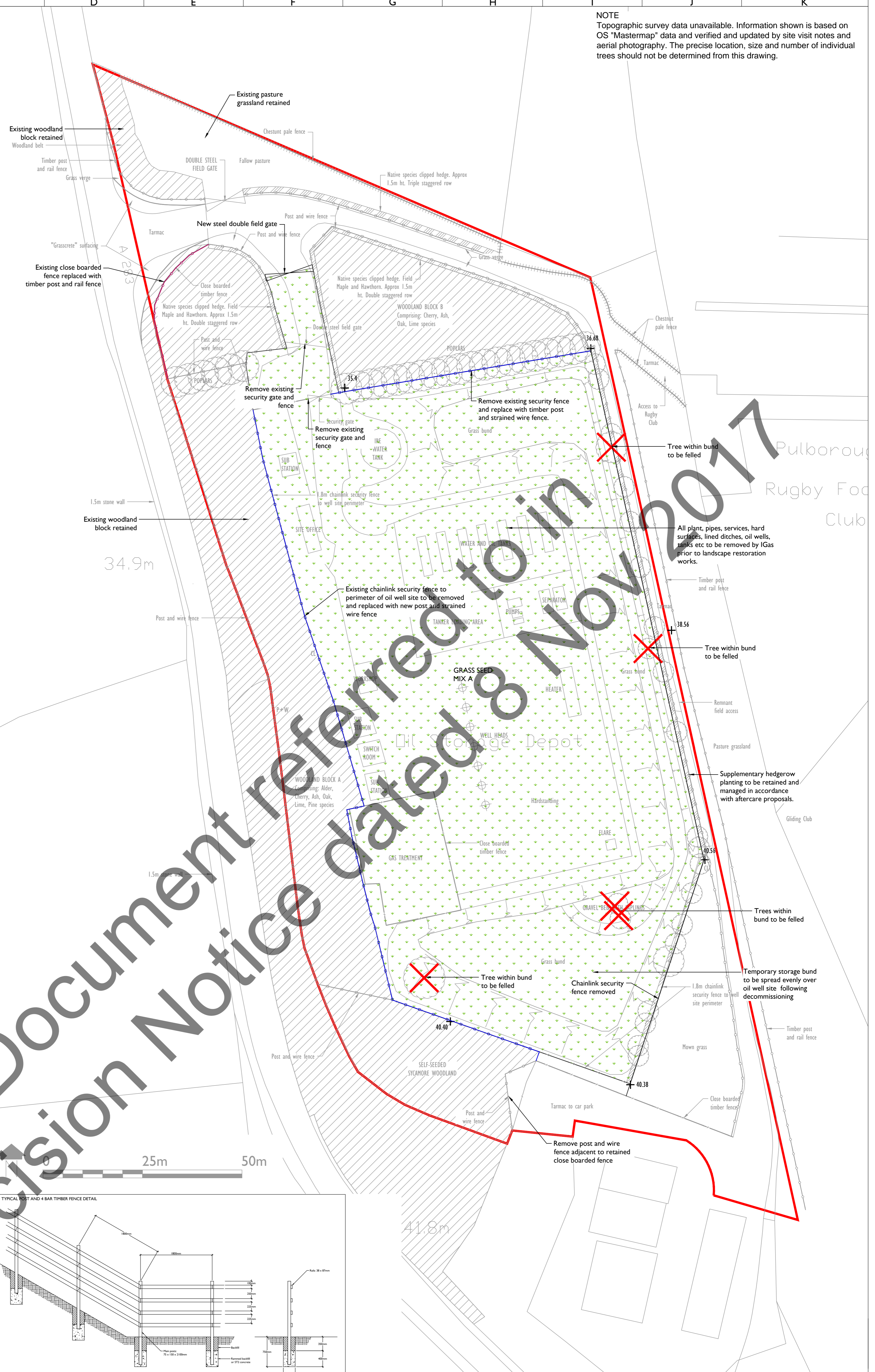
ABERZEST Perennial Ryegrass	27%
ABERAVON Perennial Ryegrass	20%
ABERDART Perennial Ryegrass	20%
ABERSTAR Perennial Ryegrass	20%
ABERACE Miniature White Clover	6.5%
PRESTO Timothy	6.5%

Sowing rate = 8g/m²

6. MAINTENANCE PERIOD
The contractor shall undertake establishment maintenance for a period of 12 months following seeding.
Establishment maintenance shall comprise:
• Land drainage - regular monitoring shall be undertaken to record any areas of prolonged soil saturation and/or ponding of surface water. Remedial action shall be undertaken as necessary, such as provision of land drains in agreement with the landowner.
• Agricultural grass seed establishment - management and topping until a dense sward is established (as defined above). All areas of failed seed shall be re-seeded in accordance with the initial specification.
• Weed control within seeded areas - translocated herbicides, spot sprayed.

7. 5 YEAR AFTERCARE PERIOD
Following restoration works a period of 5 years of aftercare management and monitoring shall be undertaken. The aftercare period shall run concurrently with the 12 month establishment period for new grass seeding. Following the 12 month establishment period, pasture land within the site shall be grazed by the landowner or any future tenant in accordance with best agricultural practices.
On-going management works during the 5 year aftercare period shall comprise an annual inspection of the following elements:

- Agricultural grass seed establishment
Any areas identified as defective shall be temporarily fenced off from livestock and reseeded in accordance with the initial seeding requirements and as agreed with the landowner.
- Hedgerow plant establishment
Recently planted hedgerows within the site shall be maintained to a clipped height of approximately 1.5m. All shelter guards shall be removed once redundant.
Dead plants shall be replaced in accordance with the initial specification to ensure continuous hedgerow.
- Woodland
Established woodland within the site shall be thinned in accordance with good forestry practice to allow the establishment of a diverse canopy structure, including ground cover vegetation. All shelter guards shall be removed once redundant.
- Land drainage
It is anticipated that the restored land will be freely draining. Annual monitoring shall be undertaken to record any areas of prolonged soil saturation and ponding of surface water. Remedial action shall be undertaken as necessary, such as the provision of land drains.



PO2	EH	SM	SM	Maintenance details updated	26/06/2014
PO1	SM	SM	SM	Client amendments	24/01/2014
Rev	Drawn	Checked	Approved	Description	Date

NOTE
Topographic survey data unavailable. Information shown is based on OS "Mastermap" data and verified and updated by site visit notes and aerial photography. The precise location, size and number of individual trees should not be determined from this drawing.

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ENVIRONMENTAL PLANNERS · LANDSCAPE ARCHITECTS · ECOLOGISTS

Client: **IGAS ENERGY**

Project: **STORRINGTON OIL WELL SITE, PULBOROUGH ROAD COOTHAM, STORRINGTON, WEST SUSSEX**

Drawing: **STORRINGTON OIL WELL SITE LANDSCAPE RESTORATION PLAN WSCC/05/13/SR PLANNING CONDITION 5**

Drawing No. NPA 10705 801 Scale 1:500@A1 Date DEC 2013

Rev PO2 Drawn RG Checked TB Approved SM Status PLANNING

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Dwg Ref: N:\Project\10705 IGWork\800 Maintenance And Management\NPA 10705 801.dwg
Plotted on 6/27/2014 by Etsanor Hall, PlotScale: 1:1, Paper Size: ISO full bleed A1 (594.00 x 841.00 MM), Plot style: NPA_ISO.ctb