

## HRA Screening of Site Options: Draft Mineral Sites Plan

There are 6 ecological issues which are key factors that help to determine the likelihood of adverse effects of development on European sites, 6 relating to aggregate and ball clay sites, and to hydrocarbon exploration and production:

- **Hydrology:** surface and sub-surface water regimes are critical to maintenance of wetland interest features of the European heathland sites. Water sources may arise within designated sites or may be at some distance from the site. In bringing forward sites for minerals and hydrocarbons, an understanding of the potential of development to adversely affect local hydrology is essential.
- **Displacement of recreation:** our understanding of the impact of human and related recreational activity on European heathlands in particular, has grown in the past decade. It is now considered a serious issue which generally threatens the integrity of these sites. If there is already public access on any site to be brought forward for mineral working, an assessment of the existing contribution to recreation in the locality will be needed, the extent to which development would deflect existing recreation patterns towards heathlands, and what mitigation in the form of alternative areas could be brought forward.
- **Proximity:** in general, the closer a mineral allocation to a European site, the more likely there are to be significant effects on that site. Such effects may result from a range of factors including habitat fragmentation, loss of dispersal corridors, and indirect effects of mineral winning and processing. For example, at its closest, an adjacent mineral quarry could affect a European site if the stand-off were too close, or the angle of cut too steep, such that the part of the European site slipped into the quarry.
- **Species:** species characteristic of European sites are often found beyond the boundaries of the sites, sometimes in considerable numbers and with functional links to the sites. This is particularly true of reptiles Sand Lizard and Smooth Snake. In addition, nightjar habitually forage long distances from their breeding places on heathlands and features in the wider landscape, such as semi-natural woodlands and improved grasslands, may be important to them.
- **Land management:** parts of European sites may be grazed within units that include areas outside the designated sites and these areas may be important in enabling the grazing regime to function properly. A development may also introduce a need for parts of the European site to be managed in a particular way that is at odds with the conservation objectives.
- **Pollution:** Restoration of mineral voids and restored habitats could affect European sites, particularly where run-off from mineral sites enters a European site directly or via a receiving watercourse.

### Allocated Sites

Site Option	Could the proposed site have likely significant effects on European sites?	Likely activities to result as a consequence of development of the site	Likely effects if site is developed	European sites potentially affected	Mitigation	In-combination effects
<b>Sand and Gravel</b>						
Binnegar Quarry, Puddletown Road (AS-01)	Yes	Sand and gravel extraction. Creation of voids which may sterilize opportunities for restoration to heathland if too deep/steep sided. Destruction of habitat supporting Annex 1 bird species.	- Effects on species characteristic of European sites including Annex 1 bird populations linked to the adjacent European sites.	Dorset Heaths SAC Dorset Heathlands SPA Dorset Heathlands Ramsar	Phased working to ensure substantial areas of the site are either unworked or restored while other areas are worked	<b>No</b>
Great Plantation, Puddletown Road (AS-06)	Yes - Insufficient ecological information has been provided for this site to enable a rigorous assessment. Site cannot be subjected to a Habs Regs Assessment at this stage. However, based on available information and the current 'red line' mineral working would have significant adverse effects on the European sites.	Sand and gravel extraction. Creation of voids.	- Proximity: based on the current proposed boundary, mineral working would destroy part of the SAC/SPA. Also potential effects of habitat fragmentation, loss of dispersal corridors and foraging habitat. - Effects on species characteristic of European sites including Annex 1 bird populations and reptile populations for which the habitat forms a functional link with adjacent European sites.	Dorset Heaths SAC Dorset Heathlands SPA Dorset Heathlands Ramsar	The magnitude of effects could be reduced by a reduction in the area to be worked and an increase in proposed heathland restoration but at present insufficient information has been provided by the operator to assess whether such a reduction could result in a viable development which would avoid the significant adverse effect identified.	<b>No</b>

Site Option	Could the proposed site have likely significant effects on European sites?	Likely activities to result as a consequence of development of the site	Likely effects if site is developed	European sites potentially affected	Mitigation	In-combination effects
			- Displacement of recreation: the site currently provides open access recreational land which helps to reduce recreational impacts on adjacent European sites.			
Hurn Court Farm Quarry, Hurn (AS-09)	No – there is no realistic pathway by which European sites could be affected by development.	N/A	N/A	N/A	N/A	<b>N/A</b>
Roeshot, Christchurch (AS-13)	No – there is no realistic pathway by which European sites could be affected by development.	N/A	N/A	N/A	N/A	<b>N/A</b>
Tatchells Quarry, Wareham (AS-15)	No – there is no realistic pathway by which European sites could be affected by development.	N/A	N/A	N/A	N/A	<b>N/A</b>
Woodsford Quarry ( AS-19)	No - although effects are considered to be below the threshold of significance they are discussed to provide information on the process behind the decision.	Sand and gravel extraction	- Effects of pollution (silt, nutrients) on Poole Harbour SPA during extraction, restoration or aftercare phases.	Poole Harbour SPA, Poole Harbour Ramsar	These effects could be mitigated against by implementation of standard pollution control measures and by creation of a suitable standoff from the River Frome.	<b>N/A</b>
Trigon Hill Extension ( AS-22)	Yes	Sand and gravel extraction. Creation of voids.	- Species effects: potential impacts on Annex 1 birds for which the site forms part of a functional unit with the SPA.	Dorset Heaths SAC, Dorset Heathlands SPA, Dorset Heathlands Ramsar	Restoration to heathland/acid grassland, plus a possible buffer zone at the northern end of the extension will mitigate any potential effects on Annex 1 birds or other species associated with the designated sites. In addition, the creation (through felling) of a more open woodland habitat would provide additional territory for Annex 1 bird species associated with the adjacent European sites.	<b>N/A</b>
Station Road, Moreton (AS-25)	No - there is no realistic pathway by which European sites could be affected by development.	N/A	N/A	N/A	N/A	<b>N/A</b>

Site Option	Could the proposed site have likely significant effects on European sites?	Likely activities to result as a consequence of development of the site	Likely effects if site is developed	European sites potentially affected	Mitigation	In-combination effects
Hurst Farm, Moreton ( AS-26)	No - although effects are considered to be below the threshold of significance they are discussed to provide information on the process behind the decision.	Sand and gravel extraction	- Effects of pollution (silt, nutrients) on Poole Harbour SPA during extraction, restoration or aftercare phases.	Poole Harbour SPA, Poole Harbour Ramsar	These effects could be mitigated against by careful pollution control measures on site and by creation of a suitable standoff from the River Frome.	N/A
<b>Crushed Rock – Site not formally allocated, but under consideration and to be assessed</b>						
Swanworth Quarry Extension, Worth Matravers (PK-16)	No – although the extension is near the Isle of Portland to Studland Cliffs SAC the plans include sufficient standoff and prevailing winds are from the South West which should carry any dust away from the SAC.	N/A	N/A	N/A	N/A	N/A
<b>Recycled Aggregates</b>						
White's Pit, Canford Heath (RA-01)	No - although effects are considered to be below the threshold of significance they are discussed to provide information on the process behind the decision.	Inert aggregate recycling	- Proximity – impacts of dust, vermin (rats and foxes) on Annex 1 birds and reptiles.	Dorset Heaths SAC, Dorset Heathlands SPA, Dorset Heathlands Ramsar	Proximity effects could be avoided by creation of a suitable standoff from the European sites and implementation of standard pollution controls.	N/A
<b>Ball Clay</b>						
Trigon Hill Extension, Wareham (BC-04)	Yes	Sand and gravel extraction.	- Species effects: potential impacts on Annex 1 birds for which the site forms part of a functional unit with the SPA.	Dorset Heaths SAC, Dorset Heathlands SPA, Dorset Heathlands Ramsar	Restoration to heathland/acid grassland, plus a possible buffer zone at the northern end of the extension will mitigate any potential effects on Annex 1 birds or other species associated with the designated sites. In addition, the creation (through felling) of a more open woodland habitat would provide additional territory for Annex 1 bird species associated with the adjacent European sites.	N/A
<b>Purbeck Stone</b>						
Blacklands Quarry Extension, Langton Matravers (PK-02)	No – there is no realistic pathway by which European sites could be affected by development.	N/A	N/A	N/A	N/A	N/A
Southard Quarry, Swanage (PK-10)	No – there is no realistic pathway by which European sites could be affected by development.	N/A	N/A	N/A	N/A	N/A

Site Option	Could the proposed site have likely significant effects on European sites?	Likely activities to result as a consequence of development of the site	Likely effects if site is developed	European sites potentially affected	Mitigation	In-combination effects
Quarr Farm, Harmans Cross (PK-08)	No – there is no realistic pathway by which European sites could be affected by development.	N/A	N/A	N/A	N/A	N/A
Downs Quarry Extension, Langton Matravers (PK-15)	No – there is no realistic pathway by which European sites could be affected by development.	N/A	N/A	N/A	N/A	N/A
Home Field, Acton (PK-17)	Yes	Stone quarrying	Creation of dust	St Albans Head to Durlston SAC	Draw back the west boundary to create a standoff near the SAC.	N/A
Broadmead Field, Langton Matravers (PK-19)	No – there is no realistic pathway by which European sites could be affected by development.	N/A	N/A	N/A	N/A	N/A
Gallows Gore, Harmans Cross (PK-21)	No – there is no realistic pathway by which European sites could be affected by development.	N/A	N/A	N/A	N/A	N/A
Quarry 4 Extension, Acton (PK-18)	No – there is no realistic pathway by which European sites could be affected by development.	N/A	N/A	N/A	N/A	N/A
<b>Portland Stone</b>						
Bowers Mine Extension, St Georges Road (PS-01)	No – there is no realistic pathway by which European sites could be affected by development.	n/a	n/a	n/a	n/a	n/a
<b>Other Building Stone (Apart from Portland and Purbeck Stone)</b>						
Marnhull Quarry, Marnhull (BS-02)	No – there is no realistic pathway by which European sites could be affected by development.	n/a	n/a	n/a	n/a	
Frogden Quarry, Osborne (BS-04)	No – there is no realistic pathway by which European sites could be affected by development.	n/a	n/a	n/a	n/a	
Whithill Quarry, Lillington (BS-05)	No – there is no realistic pathway by which European sites could be affected by development.	n/a	n/a	n/a	n/a	

**Late submission/re-submission – not allocated but included for information purposes in the Draft Plan Consultation, to be assessed (See Maps below)**

Site Option	Could the proposed site have likely significant effects on European sites?	Likely activities to result as a consequence of development of the site	Likely effects if site is developed	European sites potentially affected	Mitigation	In-combination effects
<b>Other Building Stone (Apart from Portland and Purbeck Stone)</b>						
Redlands Quarry, Todber	No – there is no realistic pathway by which European sites could be affected by development.	N/A	N/A	N/A	N/A	N/A
<b>Sand and Gravel</b>						
Horton Heath, Horton	Yes – for Horton Heath	Sand and gravel extraction from Horton Heath and Clump Hill areas.	- Displacement of recreation from Horton Heath.	Dorset Heaths SAC, Dorset Heathlands SPA and Dorset Heathlands Ramsar	Restrict permission boundary to central area of Horton Heath, avoiding rights of way and therefore protection recreational interest of site	N/A

**Sites not being taken forward through the Plan – but still requiring assessment.**

Site Option	Could the proposed site have likely significant effects on European sites?	Likely activities to result as a consequence of development of the site	Likely effects if site is developed	European sites potentially affected	Mitigation	In-combination effects
<b>Sand and Gravel</b>						
AS-10 Moreton Plantation, Moreton	Yes – although probable affects are considered here, insufficient ecological information has been provided for this site to enable a rigorous assessment. Therefore the site cannot be subjected to a Habs Regs Assessment at this stage.	Extraction of sand and gravel	-Displacement of recreation onto adjacent European sites -Effects on hydrology of European sites -Effects on species characteristic of European sites including Annex 1 birds. Site may qualify as pSPA. -Proximity. Working part of the site would impact on the quality of the remaining habitat. -Site boundary includes significant parts of the European sites which would be adversely affected.	Dorset Heaths SAC, Dorset Heathlands SPA	Unable to assess this due to insufficient information.	n/a
AS-11 Parley Court (Phase 3), Hurn	No – there is no realistic pathway by which European sites could be affected by development..	n/a	n/a	n/a	n/a	n/a
AS-12 Philliols Farm, Wareham	Yes. This conclusion relies on expert judgement as insufficient supporting ecological information has been supplied by the applicant. For this reason it is not possible to carry out a Habs Regs Assessment at this stage, although an indication of the likely effects and possible mitigation is presented.	Use of haul road through or adjacent to European sites.	- Displacement of recreation from Wareham Forest if haul road ran through the Forest - Effects on species characteristic of European sites, including Annex 1 birds	Dorset Heaths SAC, Dorset Heathlands SPA, Dorset Heathlands Ramsar	Re-routing of haul road along western edge of Wareham Forest. Creation of a standoff at the northern boundary of the site to buffer effects on adjacent European Sites	n/a
AS-14 Henbury Farm, Sturminster Marshall	No – there is no realistic pathway by which European sites could be affected by development.	n/a	n/a	n/a	n/a	n/a
AS-21 Came Home Farm, Dorchester	No – there is no realistic pathway by which European sites could be affected by development.	n/a	n/a	n/a	n/a	n/a
AS-23 Gore Heath, Sandford	Yes. This conclusion relies on expert judgement as insufficient ecological information has been provided by the applicant. For this reason it is not possible to carry out a HRA at this stage, although an indication of the likely effects is presented.	Extraction of sand and gravel	- Displacement of recreation from the proposed site to adjacent European sites. - Effects on species characteristic of European sites, including Annex 1 birds. Site known to support Nightjar and may qualify as pSPA - Effects resulting from proximity to European sites – working this site may affect the quality of the adjacent sites.	Dorset Heaths SAC, Dorset Heathlands SPA, Dorset Heathlands Ramsar	Unable to assess this due to insufficient information.	n/a

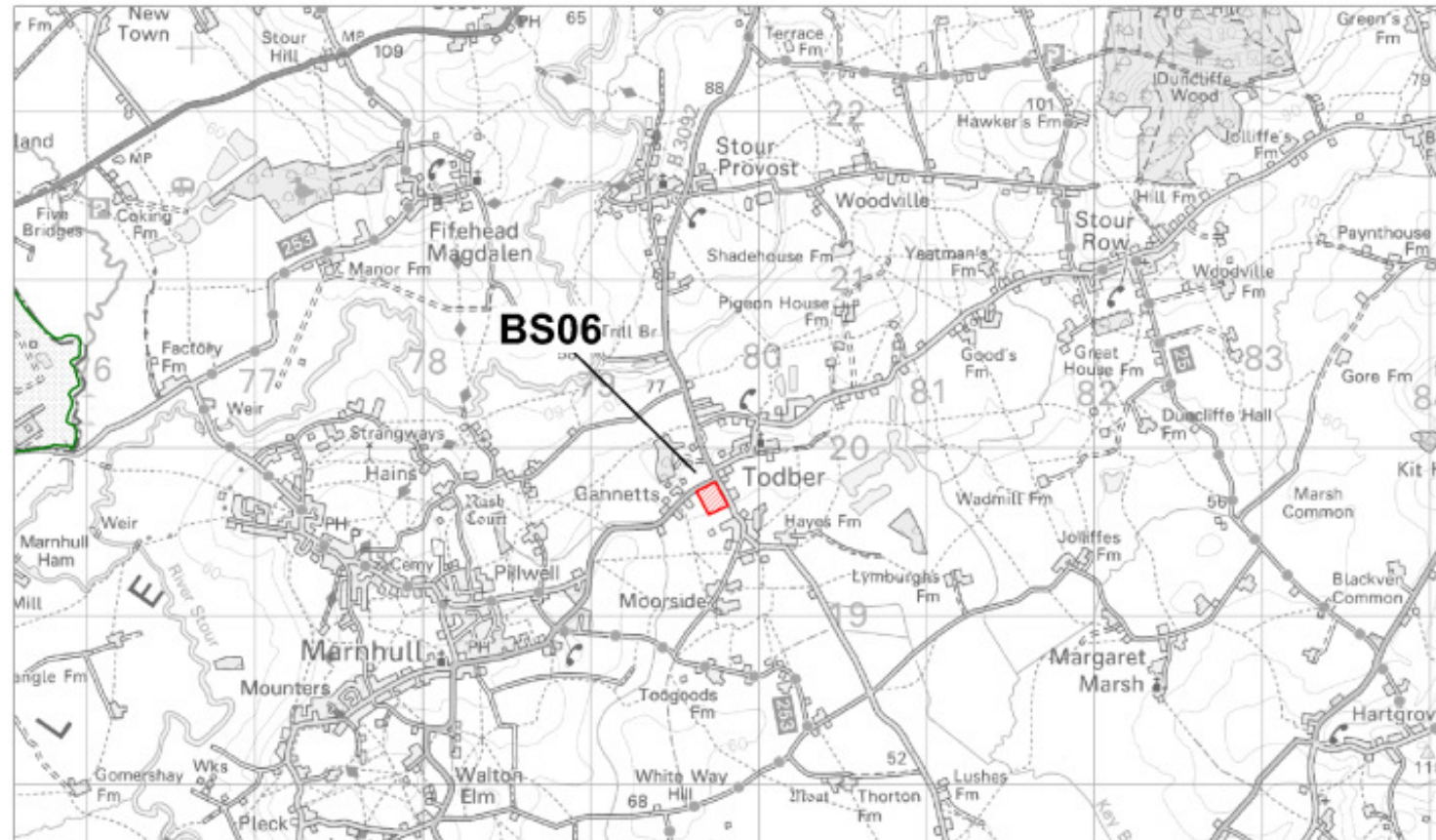
AS-24 Purple Haze (South), Verwood	Yes. This conclusion relies on expert judgement as insufficient ecological information has been provided by the applicant. For this reason it is not possible to carry out a HRA at this stage, although an indication of the likely effects is presented.	Extraction of sand and gravel	- In-combination effects from proximity to Purple Haze north. - Displacement of recreation. Site is part of Moors Valley Country Park, an area which is key to attraction recreation away from adjacent European sites. - Effects on species characteristic of European sites – records of Nightjar and Sand lizard.	Dorset Heaths SAC, Dorset Heathlands SPA, Dorset Heathlands Ramsar	Not possible to assess without further information.	Yes, likely.
<b>Ball Clay</b>						
BC-05 Holme Heath Triangle (Dorey's), Wareham	Yes. This conclusion relies on expert judgement as insufficient ecological information has been provided by the applicant. For this reason it is not possible to carry out a HRA at this stage, although an indication of the likely effects is presented.	Extraction of ball clay	- Effects on hydrology – it is likely that approximately half of the site helps support the adjacent mire system which forms part of the relevant European sites. - Effects resulting from proximity to European sites – working this site may affect the quality of the adjacent sites. - Effects on species characteristic of European sites – it is likely that the area supports Annex 1 birds functionally linked with the SPA - Effects on management of European sites – the site forms part of a grazing unit linking the European sites to the north and south. If this was disrupted it is likely that the effectiveness of grazing would be compromised.	Dorset Heaths SAC, Dorset Heathlands SPA, Dorset Heathlands Ramsar	Unable to assess this without further information.	No
<b>Purbeck Stone</b>						
PK-11 St Aldhelm's Quarry Extension, Purbeck	No – there is no realistic pathway by which European sites could be affected by development.	n/a	n/a	n/a	n/a	n/a
PK-20 Crack Lane, Langton Matravers	No – there is no realistic pathway by which European sites could be affected by development.	n/a	n/a	n/a	n/a	n/a
<b>Portland Stone</b>						
PS-02 Perryfield Quarry Extension, Portland	No – there is no realistic pathway by which European sites could be affected by development.	n/a	n/a	n/a	n/a	n/a
<b>Other Building Stone (Apart from Portland and Purbeck Stone)</b>						
BS-01 Manor Farm Quarry, Melbury Abbas	No – there is no realistic pathway by which European sites could be affected by	n/a	n/a	n/a	n/a	n/a

	development.					
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**Redlands Quarry, Todber**

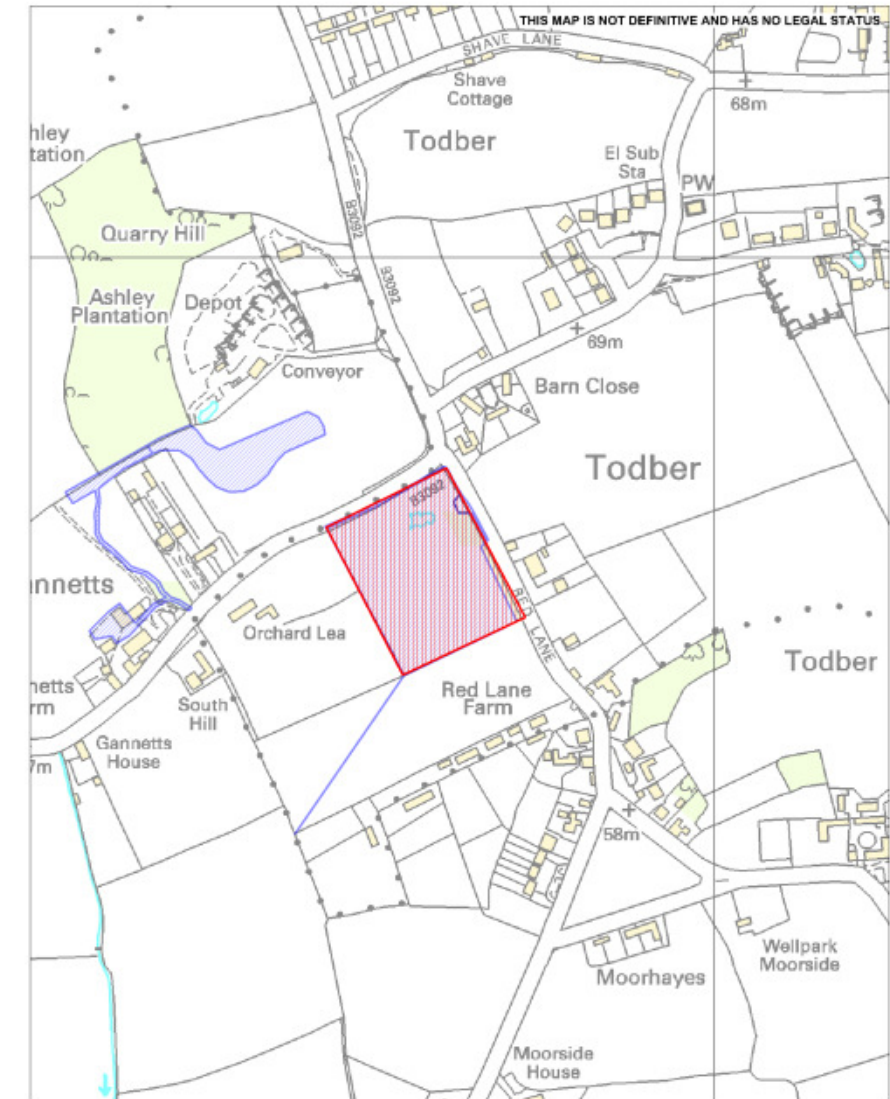
Redlands Quarry in Todber (Inset Map BS-06 and location map Figure 10 below) has also been suggested for inclusion in the Mineral Sites Plan. There is no extension or new site area proposed, but allocation in the Plan will assist in securing future supply of stone from the site. It is estimated that there is some 40 years supply of stone left in the quarry, with a current extant permission for extraction for 5 years. As this site nomination has only recently been received and has not been assessed for possible impacts by the Mineral Planning Authority, it is not at this stage presented as an allocation in the Plan. Furthermore, since there is no new development proposed at this site, the Mineral Planning Authority is considering whether it is appropriate to include it as a site allocation.



**Redlands Quarry**

Redlands Quarry  
 Authority boundary

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**Site: BS06 - Redlands Quarry**

OS Ref: SY797119

Nominated site  
 Site with existing permission

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**Horton Heath, Horton**

Land at Horton Heath (Inset Map AS-08 in Appendix A and location map Figure 2 below) has in the past been nominated for consideration, and has recently been amended and re-submitted. As this re-submission has only just been received it has not been re-assessed for possible impacts and their mitigation and therefore is not at this stage presented as an allocation in the Plan. It is included for information purposes at this time. The nomination will be re-assessed and the Mineral Planning Authority will come to a decision regarding whether it is suitable for inclusion in the Mineral Sites Plan.

