

Option

A1 A2 Combined pipeline 2

Metrics	Units	Temporary	Permanent (SRO intervention)	Permanent (BNG net gain +10%)	Comment
Biodiversity	RAG				<i>Water purification is based on the current and proposed land use, and proximity to waterbody. Therefore, there isn't an expected difference between the SRO intervention and the Biodiversity net gain scenario, biodiversity modelling would allocate habitat creation to grassland instead of agriculture</i>
Climate Regulation	£2019/year				
Natural Hazard Regulation	£/year				
Water Purification	RAG				
Water Regulation	na				
Air Quality	na				
Recreation and Tourism	£2019/year				
Agriculture	£2019/year				

Natural Capital Assessment

Biodiversity

Pull numbers from BNG spreadsheet
Tabs used are

Climate regulation

Spreadsheet means that all info should just be pulled from biodiversity tab - check this is correct
May have to add extra habitats in, the climate regulation values with the correct formulas can be found on tab 'A1' which is hidden

Natural hazard regulation

Data needed		
Woodland (ha)	Note - only lowland meadows should be used, due to data used to create value. This includes unimproved neutral grassland. This means if modified grassland included in main valye in biodiversity table then data should be entered manually in the grassland section for natural hazard. More information on classification can be found on: Note - includes open water, wetlands and floodplains	Lowland meadows Buglife
Grasslands (ha)		
Freshwater (ha)		

Option name	
Area coverage (ha)	
Notes	

Biodiversity

Overall Biodiversity metric tool unit score

Broad habitat	Ecosystem services	Temporary habitat lost during construction (ha)	Permanent habitat loss (ha)	On-site re-instatement (ha)	Off-site habitat creation/ BNG uplift (ha)	Biodiversity net loss metric score (Temporary and permanent loss)	Biodiversity metric score rating based on +10% net gain
Arable land	Crops, carbon sequestration, air quality management						
Freshwater	Water abstraction, recreation, flood regulation						
Grassland	Carbon sequestration, air quality management, recreation						
Heathland	Livestock, carbon sequestration, recreation						
Marine	Fisheries, recreation, water desalination						
Shrub	Livestock, carbon sequestration, recreation						
Urban	No environmental benefits						
Woodland (coniferous)	Timber, carbon sequestration, air quality management, recreation						
Woodland (deciduous)	Timber, carbon sequestration, air quality management, recreation						

Habitats that may be included but often aren't so not in main table. Delete this part if unused before sending to client

- Peatland - Undamaged
- Peatland - Overgrazed
- Peatland - Rotationally burnt
- Peatland - Extracted
- Saltmarsh
- Green urban

Natural hazard regulation

Instructions - hide col E when finished

Broad habitat type	Temporary habitat lost during construction (ha)	Baseline value of natural hazard regulation (non-adjusted)	Baseline value of natural hazard regulation (£2019) /year
Woodland			
Semi-natural grasslands			
Freshwater			

Broad habitat type	Permanent habitat loss (ha)	Baseline value of natural hazard regulation (non-adjusted)	Baseline value of natural hazard regulation (£2019) /year
Woodland			
Semi-natural grasslands			
Freshwater			

Broad habitat type	On-site re-instatement (ha)	Baseline value of natural hazard regulation (non-adjusted)	Baseline value of natural hazard regulation (£2019) /year
Woodland			
Semi-natural grasslands			
Freshwater			

Broad habitat type	Off-site habitat succession (ha)	Baseline value of natural hazard regulation (non-adjusted)	Baseline value of natural hazard regulation (£2019) /year
Woodland			
Semi-natural grasslands			
Freshwater			

Water Purification

Overall RAG score 0.25

Component	Permanent or temporary loss	WFD Status and waterbody	Assessment	RAG rating	Assigned weight
Calshot intake and outfall	Temporary	N/a	Water purification services are currently provided by arable, pasture, woodland and grassland habitats. Water for the [redacted] desalination plant will be abstracted from The Solent. The Solent has a Special Protection Area (SPA) and Special Area of Conservation (SAC) designation. Therefore, there is no impact to water purification services.	0	0.25
Pipeline route from intake/outfall to [redacted]	Temporary	N/a	[redacted] desalination plant will abstract water from The Solent. The Solent has a Special Protection Area (SPA) and Special Area of Conservation (SAC) designation. Therefore, there is a potential impact to water purification services.	-1	0.25
[redacted] desalination plant	Permanent	N/a	Water purification services are currently provided by woodland and grassland habitats. The construction involves a desalination plant which will be receive water from [redacted] FAWPS Site. Therefore, the permanent land cover change will have a minor impact to water purification services.	-2	0.75
Pipeline route to [redacted] and Reception tanks at [redacted]	Permanent	River Test - Moderate Status	[redacted] desalination plant will abstract water from The Solent. The desalinated water will be transferred to [redacted] WSW which will reduce the abstraction in the River Test. Water purification services are currently provided by arable, pasture, woodland and grassland habitats. River Test (Lower) WFD waterbody is currently achieving Moderate status. Therefore, the increase in flow (as desalination plant will transfer 75Ml/d or 61Ml/d) has a potential to improve water purification services as dilution of pollutants downstream will increase.	3	0.75

0.5
2
0.25

Criteria

Water purification	
0	No change
1 / -1	Negligible changes in land cover which will have a relatively minor impact to water quality based on the absence of a nearby waterbody
2 / -2	Change in land cover (e.g. farmland, green urban, heath or other grassland/shrub habitats) which will have a minor impact to water quality and/or minor change in dilution which could affect water quality
3 / -3	Change in land cover (woodland, salt marsh or undamaged peatland) which will have a moderate/ major impact to water quality and/or major change in dilution which could affect water quality

Water Regulation

No Assessment

The WRPG does not require the monetisation of Water Regulation Services. The main benefit is the deployable output, therefore this is not considered as an additional Natural Capital benefit to avoid double counting, and Water Regulation has been screened out of the assessment.

Recreation and Tourism

			Total			Total		
Component	Location	Type of recreation/ Tourism impacted	Welfare Value (per year)	Estimated visits (per year)	Conditional multiplier (based on number of path intersections or construction area / area of recreation)	Adjusted welfare Value (£2019 per year)	Adjusted estimated visits (per year)	
Calshot intake and outfall area and pipeline route	End of the disused power station	Path						
	Intake and outfall area	Path						
Desalination plant	Desalination area	Path						
Pipeline to Testwood WSW route 2		Cemetery						
		Managed grass/sport pitches						
		Path						
		Path - Part of New Forest National Park						
		Path - Part of New Forest National Park						
		Path						
		Path						
		Allotments						
	Path - Part of New Forest National Park							

Air Quality

No Assessment
The configuration does not fall within an Air Quality Management Area, and due to the temporary nature of habitat impacts during construction, Air Quality has been screened out of the assessment.

Agriculture

Arable 2019 price



Configuration	Permanent arable land loss (ha)	Estimated Permanent Agriculture value (£) / year	Temporary arable land loss (ha)	Estimated Temporary Agriculture value (£)/ year
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