

Southern Water Gate 2 - Natural Capital component assessments

Desalination Option Components

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Element ref	
Element ID	
Element Name	
Description	
Zone of interest area (ha)	

Stocks and BNG

Broad habitat	Ecosystem services	Temporary habitat lost during construction (Area within Zol) (ha)	Permanent habitat loss (ha)	Area planned for habitat creation (ha)
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				
Urban	No environmental benefits			
Woodland (coniferous)	Timber, carbon sequestration, air quality management, recreation			
Woodland (deciduous)	Timber, carbon sequestration, air quality management, recreation			

Carbon sequestration - within Zol

Broad habitat	Cumulative area (ha)	Low non-traded carbon (£2019)	Medium non-traded carbon (£2019)	High non-traded carbon (£2019)
Arable land				
Grassland				
Heathland				
Shrub				
Woodland (coniferous)				
Woodland (deciduous)				
Total				

Carbon sequestration - permanent habitat loss

Broad habitat	Cumulative area (ha)	Low non-traded carbon (£2019)	Medium non-traded carbon (£2019)	High non-traded carbon (£2019)
Arable land				
Grassland				
Heathland				
Shrub				
Woodland (coniferous)				
Woodland (deciduous)				
Total				

Carbon sequestration - area planned for habitat creation

Broad habitat	Cumulative area (ha)	Low non-traded carbon (£2019)	Medium non-traded carbon (£2019)	High non-traded carbon (£2019)
Arable land				
Grassland				
Heathland				
Shrub				
Woodland (coniferous)				
Woodland (deciduous)				
Total				

Water Purification

Qualitative assessment	Assessment

Recreation

Welfare Value (per year)	Estimated visits (per year)

Agricultural

Permanent Loss Estimated agriculture value (£2019)	Temporary Loss Estimated agriculture value (£2019)

Air Quality

Area not within Air Quality Management Area

Natural hazard regulation

Temporary habitat lost during construction (Area within Zol) (ha)

Broad habitat type	Value of natural hazard regulation lost (£2019)
Woodland	
Semi-natural grasslands	
Freshwater	

Permanent habitat loss (ha)

Broad habitat type	Value of natural hazard regulation lost (£2019)
Woodland	
Semi-natural grasslands	
Freshwater	

Area planned for habitat creation (ha)

Broad habitat type	Value of natural hazard regulation gained (£2019)
Woodland	
Semi-natural grasslands	
Freshwater	

Element ref	
Element ID	
Element Name	FAWPS_Sites_Habitats - Parcel 19
Description	
Zone of interest area (ha)	

Stocks and BNG

Broad habitat	Ecosystem services	Temporary habitat lost during construction (Area within Zol) (ha)	Permanent habitat loss (ha)	Area planned for habitat creation (ha)
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				
Urban	No environmental benefits			
Woodland (coniferous)	Timber, carbon sequestration, air quality management, recreation			
Woodland (deciduous)	Timber, carbon sequestration, air quality management, recreation			

Carbon sequestration - within Zol

Broad habitat	Cumulative area (ha)	Low non-traded carbon (£2019)	Medium non-traded carbon (£2019)	High non-traded carbon (£2019)
Arable land				
Grassland				
Heathland				
Shrub				
Woodland (coniferous)				
Woodland (deciduous)				

Carbon sequestration - permanent habitat loss

Broad habitat	Cumulative area (ha)	Low non-traded carbon (£2019)	Medium non-traded carbon (£2019)	High non-traded carbon (£2019)
Arable land				
Grassland				
Heathland				
Shrub				
Woodland (coniferous)				
Woodland (deciduous)				

Carbon sequestration - area planned for habitat creation

Broad habitat	Cumulative area (ha)	Low non-traded carbon (£2019)	Medium non-traded carbon (£2019)	High non-traded carbon (£2019)
Arable land				
Grassland				
Heathland				
Shrub				
Woodland (coniferous)				
Woodland (deciduous)				

Water Purification

	Assessment
Qualitative assessment	Water purification services are currently provided by arable, pasture, woodland and grassland habitats. Water for the Ashlett Creek 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 potential impact to water purification services.

Recreation

Welfare Value (per year)	Estimated visits (per year)
£0.00	0

Agricultural

Permanent Loss Estimated agriculture value (£2019)	Temporary Loss Estimated agriculture value (£2019)

Air Quality

Area not within Air Quality Management Area

Natural hazard regulation

Temporary habitat lost during construction (Area within Zol) (ha)

Broad habitat type	Value of natural hazard regulation lost (£2019)
Woodland	
Semi-natural grasslands	
Freshwater	

Permanent habitat loss (ha)

Broad habitat type	Value of natural hazard regulation lost (£2019)
Woodland	
Semi-natural grasslands	
Freshwater	

Area planned for habitat creation (ha)

Broad habitat type	Value of natural hazard regulation gained (£2019)
Woodland	
Semi-natural grasslands	
Freshwater	

Element ref	
Element ID	
Element Name	FAWPS_Sites_Habitats - Parcel 21
Description	
Zone of interest area (ha)	

Stocks and BNG

Broad habitat	Ecosystem services	Temporary habitat lost during construction (Area within Zol) (ha)	Permanent habitat loss (ha)	Area planned for habitat creation (ha)
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				
Urban	No environmental benefits			
Woodland (coniferous)	Timber, carbon sequestration, air quality management, recreation			
Woodland (deciduous)	Timber, carbon sequestration, air quality management, recreation			

Carbon sequestration - within Zol

Broad habitat	Cumulative area (ha)	Low non-traded carbon (£2019)	Medium non-traded carbon (£2019)	High non-traded carbon (£2019)
Arable land				
Grassland				
Heathland				
Shrub				
Woodland (coniferous)				
Woodland (deciduous)				

Carbon sequestration - permanent habitat loss

Broad habitat	Cumulative area (ha)	Low non-traded carbon (£2019)	Medium non-traded carbon (£2019)	High non-traded carbon (£2019)
Arable land				
Grassland				
Heathland				
Shrub				
Woodland (coniferous)				
Woodland (deciduous)				

Carbon sequestration - area planned for habitat creation

Broad habitat	Cumulative area (ha)	Low non-traded carbon (£2019)	Medium non-traded carbon (£2019)	High non-traded carbon (£2019)
Arable land				
Grassland				
Heathland				
Shrub				
Woodland (coniferous)				
Woodland (deciduous)				

Water Purification

	Assessment
Qualitative assessment	Water purification services are currently provided by arable, pasture, woodland and grassland habitats. Water for the Ashlett Creek 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 potential impact to water purification services.

Recreation

Welfare Value (per year)	Estimated visits (per year)
£0.00	0

Agricultural

Permanent Loss Estimated agriculture value (£2019)	Temporary Loss Estimated agriculture value (£2019)

Air Quality

Area not within Air Quality Management Area

Natural hazard regulation

Temporary habitat lost during construction (Area within Zol) (ha)

Broad habitat type	Value of natural hazard regulation lost (£2019)
Woodland	
Semi-natural grasslands	
Freshwater	

Permanent habitat loss (ha)

Broad habitat type	Value of natural hazard regulation lost (£2019)
Woodland	
Semi-natural grasslands	
Freshwater	

Area planned for habitat creation (ha)

Broad habitat type	Value of natural hazard regulation gained (£2019)
Woodland	
Semi-natural grasslands	
Freshwater	

Element ref	
Element ID	
Element Name	FAWPS_Sites_Habitats - Parcel 23
Description	
Zone of interest area (ha)	

Stocks and BNG

Broad habitat	Ecosystem services	Temporary habitat lost during construction (Area within Zol) (ha)	Permanent habitat loss (ha)	Area planned for habitat creation (ha)
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				
Urban	No environmental benefits			
Woodland (coniferous)	Timber, carbon sequestration, air quality management, recreation			
Woodland (deciduous)	Timber, carbon sequestration, air quality management, recreation			

Carbon sequestration - within Zol

Broad habitat	Cumulative area (ha)	Low non-traded carbon (£2019)	Medium non-traded carbon (£2019)	High non-traded carbon (£2019)
Arable land				
Grassland				
Heathland				
Shrub				
Woodland (coniferous)				
Woodland (deciduous)				

Carbon sequestration - permanent habitat loss

Broad habitat	Cumulative area (ha)	Low non-traded carbon (£2019)	Medium non-traded carbon (£2019)	High non-traded carbon (£2019)
Arable land				
Grassland				
Heathland				
Shrub				
Woodland (coniferous)				
Woodland (deciduous)				

Carbon sequestration - area planned for habitat creation

Broad habitat	Cumulative area (ha)	Low non-traded carbon (£2019)	Medium non-traded carbon (£2019)	High non-traded carbon (£2019)
Arable land				
Grassland				
Heathland				
Shrub				
Woodland (coniferous)				
Woodland (deciduous)				

Water Purification

	Assessment
Qualitative assessment	Water purification services are currently provided by arable, pasture, woodland and grassland habitats. Water for the Ashlett Creek 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 potential impact to water purification services.

Recreation

Welfare Value (per year)	Estimated visits (per year)
£0.00	0

Agricultural

Permanent Loss Estimated agriculture value (£2019)	Temporary Loss Estimated agriculture value (£2019)

Air Quality

Area not within Air Quality Management Area

Natural hazard regulation

Temporary habitat lost during construction (Area within Zol) (ha)

Broad habitat type	Value of natural hazard regulation lost (£2019)
Woodland	
Semi-natural grasslands	
Freshwater	

Permanent habitat loss (ha)

Broad habitat type	Value of natural hazard regulation lost (£2019)
Woodland	
Semi-natural grasslands	
Freshwater	

Area planned for habitat creation (ha)

Broad habitat type	Value of natural hazard regulation gained (£2019)
Woodland	
Semi-natural grasslands	
Freshwater	

Element ref	
Element ID	
Element Name	to Abstraction and Discharge Route 2 No Sites Habitat
Description	
Zone of interest area (ha)	

Stocks and BNG

Broad habitat	Ecosystem services	Temporary habitat lost during construction (Area within Zol) (ha)	Permanent habitat loss (ha)	Area planned for creation (ha)
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				
Urban	No environmental benefits			
Woodland (coniferous)	Timber, carbon sequestration, air quality management, recreation			
Woodland (deciduous)	Timber, carbon sequestration, air quality management, recreation			

Carbon sequestration - within Zol

Broad habitat	Cumulative area (ha)	Low non-traded carbon (£2019)	Medium non-traded carbon (£2019)	High non-traded carbon (£2019)
Arable land				
Grassland				
Heathland				
Shrub				
Woodland (coniferous)				
Woodland (deciduous)				

Carbon sequestration - permanent habitat loss

Broad habitat	Cumulative area (ha)	Low non-traded carbon (£2019)	Medium non-traded carbon (£2019)	High non-traded carbon (£2019)
Arable land				
Grassland				
Heathland				
Shrub				
Woodland (coniferous)				
Woodland (deciduous)				

Carbon sequestration - area planned for habitat creation

Broad habitat	Cumulative area (ha)	Low non-traded carbon (£2019)	Medium non-traded carbon (£2019)	High non-traded carbon (£2019)
Arable land				
Grassland				
Heathland				
Shrub				
Woodland (coniferous)				
Woodland (deciduous)				

Water Purification

	Assessment
Qualitative assessment	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.

Recreation

Welfare Value (per year)	Estimated visits (per year)

Agricultural

Permanent Loss Estimated agriculture value (£2019)	Temporary Loss Estimated agriculture value (£2019)

Air Quality

Area not within Air Quality Management Area

Natural hazard regulation

Temporary habitat lost during construction (Area within Zol) (ha)

Broad habitat type	Value of natural hazard regulation lost (£2019)
Woodland	
Semi-natural grasslands	
Freshwater	

Permanent habitat loss (ha)

Broad habitat type	Value of natural hazard regulation lost (£2019)
Woodland	
Semi-natural grasslands	
Freshwater	

Area planned for habitat creation (ha)

Broad habitat type	Value of natural hazard regulation gained (£2019)
Woodland	
Semi-natural grasslands	
Freshwater	

to Abstraction and Discharge Route 3 No Sites Habitat

Element ref	
Element ID	
Element Name	to Abstraction and Discharge Route 3 No Sites Habitat
Description	
Zone of interest area (ha)	

Stocks and BNG

Broad habitat	Ecosystem services	Temporary habitat lost during construction (Area within Zol) (ha)	Permanent habitat loss (ha)	Area planned for habitat creation (ha)
Arable land	Crops, carbon sequestration, air quality management Water abstraction, recreation, flood regulation Carbon sequestration, air quality management, recreation Livestock, carbon sequestration, recreation Fisheries, recreation, water desalination No environmental benefits Timber, carbon sequestration, air quality management, recreation Timber, carbon sequestration, air quality management, recreation			
Freshwater				
Grassland				
Heathland				
Marine				
Shrub				
Urban				
Woodland (coniferous)				
Woodland (deciduous)				

Carbon sequestration - within Zol

Broad habitat	Cumulative area (ha)	Low non-traded carbon (£2019)	Medium non-traded carbon (£2019)	High non-traded carbon (£2019)
Arable land				
Grassland				
Heathland				
Shrub				
Woodland (coniferous)				
Woodland (deciduous)				

Carbon sequestration - permanent habitat loss

Broad habitat	Cumulative area (ha)	Low non-traded carbon (£2019)	Medium non-traded carbon (£2019)	High non-traded carbon (£2019)
Arable land				
Grassland				
Heathland				
Shrub				
Woodland (coniferous)				
Woodland (deciduous)				

Carbon sequestration - area planned for habitat creation

Broad habitat	Cumulative area (ha)	Low non-traded carbon (£2019)	Medium non-traded carbon (£2019)	High non-traded carbon (£2019)
Arable land				
Grassland				
Heathland				
Shrub				
Woodland (coniferous)				
Woodland (deciduous)				

Water Purification

	Assessment
Qualitative assessment	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.

Recreation

Welfare Value (per year)	Estimated visits (per year)

Agricultural

Permanent Loss Estimated agriculture value (£2019)	Temporary Loss Estimated agriculture value (£2019)

Air Quality

Area not within Air Quality Management Area

Natural hazard regulation

Temporary habitat lost during construction (Area within Zol) (ha)

Broad habitat type	Value of natural hazard regulation lost (£2019)
Woodland	
Semi-natural grasslands	
Freshwater	

Permanent habitat loss (ha)

Broad habitat type	Value of natural hazard regulation lost (£2019)
Woodland	
Semi-natural grasslands	
Freshwater	

Area planned for habitat creation (ha)

Broad habitat type	Value of natural hazard regulation gained (£2019)
Woodland	
Semi-natural grasslands	
Freshwater	

to Abstraction and Discharge Route 4 No Sites Habitat

Element ref	
Element ID	
Element Name	to Abstraction and Discharge Route 4 No Sites Habitat
Description	
Zone of interest area (ha)	

Stocks and BNG

Broad habitat	Ecosystem services	Temporary habitat lost during construction (Area within Zol) (ha)	Permanent habitat loss (ha)	Area planned for creation (ha)
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				
Urban	No environmental benefits			
Woodland (coniferous)	Timber, carbon sequestration, air quality management, recreation			
Woodland (deciduous)	Timber, carbon sequestration, air quality management, recreation			

Carbon sequestration - within Zol

Broad habitat	Cumulative area (ha)	Low non-traded carbon (£2019)	Medium non-traded carbon (£2019)	High non-traded carbon (£2019)
Arable land				
Grassland				
Heathland				
Shrub				
Woodland (coniferous)				
Woodland (deciduous)				

Carbon sequestration - permanent habitat loss

Broad habitat	Cumulative area (ha)	Low non-traded carbon (£2019)	Medium non-traded carbon (£2019)	High non-traded carbon (£2019)
Arable land				
Grassland				
Heathland				
Shrub				
Woodland (coniferous)				
Woodland (deciduous)				

Carbon sequestration - area planned for habitat creation

Broad habitat	Cumulative area (ha)	Low non-traded carbon (£2019)	Medium non-traded carbon (£2019)	High non-traded carbon (£2019)
Arable land				
Grassland				
Heathland				
Shrub				
Woodland (coniferous)				
Woodland (deciduous)				

Water Purification

	Assessment
Qualitative assessment	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.

Recreation

Welfare Value (per year)	Estimated visits (per year)

Agricultural

Permanent Loss Estimated agriculture value (£2019)	Temporary Loss Estimated agriculture value (£2019)

Air Quality

Area not within Air Quality Management Area

Natural hazard regulation

Temporary habitat lost during construction (Area within Zol) (ha)

Broad habitat type	Value of natural hazard regulation lost (£2019)
Woodland	
Semi-natural grasslands	
Freshwater	

Permanent habitat loss (ha)

Broad habitat type	Value of natural hazard regulation lost (£2019)
Woodland	
Semi-natural grasslands	
Freshwater	

Area planned for habitat creation (ha)

Broad habitat type	Value of natural hazard regulation gained (£2019)
Woodland	
Semi-natural grasslands	
Freshwater	

PS

Element ref	
Element ID	
Element Name	PS
Description	
Zone of interest area (ha)	

Stocks and BNG

Broad habitat	Ecosystem services	Temporary habitat lost during construction (Area within Zol) (ha)	Permanent habitat loss (ha)	Area planned for habitat creation (ha)
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				
Urban	No environmental benefits			
Woodland (coniferous)	Timber, carbon sequestration, air quality management, recreation			
Woodland (deciduous)	Timber, carbon sequestration, air quality management, recreation			

Carbon sequestration - within Zol

Broad habitat	Cumulative area (ha)	Low non-traded carbon (£2019)	Medium non-traded carbon (£2019)	High non-traded carbon (£2019)
Arable land				
Grassland				
Heathland				
Shrub				
Woodland (coniferous)				
Woodland (deciduous)				

Carbon sequestration - permanent habitat loss

Broad habitat	Cumulative area (ha)	Low non-traded carbon (£2019)	Medium non-traded carbon (£2019)	High non-traded carbon (£2019)
Arable land				
Grassland				
Heathland				
Shrub				
Woodland (coniferous)				
Woodland (deciduous)				

Carbon sequestration - area planned for habitat creation

Broad habitat	Cumulative area (ha)	Low non-traded carbon (£2019)	Medium non-traded carbon (£2019)	High non-traded carbon (£2019)
Arable land				
Grassland				
Heathland				
Shrub				
Woodland (coniferous)				
Woodland (deciduous)				

Water Purification

	Assessment
Qualitative assessment	Water purification services are currently provided by grassland, and woodland habitats. A pumping station will be constructed. The Solent is nearby and has a Special Protection Area (SPA) and Special Area of Conservation (SAC) designation. Therefore, there is a potential impact to water purification services.

Recreation

Welfare Value (per year)	Estimated visits (per year)

Agricultural

Permanent Loss Estimated agriculture value (£2019)	Temporary Loss Estimated agriculture value (£2019)

Air Quality

Area not within Air Quality Management Area

Natural hazard regulation

Temporary habitat lost during construction (Area within Zol) (ha)

Broad habitat type	Value of natural hazard regulation lost (£2019)
Woodland	
Semi-natural grasslands	
Freshwater	

Permanent habitat loss (ha)

Broad habitat type	Value of natural hazard regulation lost (£2019)
Woodland	
Semi-natural grasslands	
Freshwater	

Area planned for habitat creation (ha)

Broad habitat type	Value of natural hazard regulation gained (£2019)
Woodland	
Semi-natural grasslands	
Freshwater	

to Route 1 No Sites Habitat

Element ref	
Element ID	
Element Name	to Route 1 No Sites Habitat
Description	
Zone of interest area (ha)	

Stocks and BNG

Broad habitat	Ecosystem services	Temporary habitat lost during construction (Area within Zol) (ha)	Permanent habitat loss (ha)	Area planned for creation (ha)
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				
Urban	No environmental benefits			
Woodland (coniferous)	Timber, carbon sequestration, air quality management, recreation			
Woodland (deciduous)	Timber, carbon sequestration, air quality management, recreation			

Carbon sequestration - within Zol

Broad habitat	Cumulative area (ha)	Low non-traded carbon (£2019)	Medium non-traded carbon (£2019)	High non-traded carbon (£2019)
Arable land				
Grassland				
Heathland				
Shrub				
Woodland (coniferous)				
Woodland (deciduous)				

Carbon sequestration - permanent habitat loss

Broad habitat	Cumulative area (ha)	Low non-traded carbon (£2019)	Medium non-traded carbon (£2019)	High non-traded carbon (£2019)
Arable land				
Grassland				
Heathland				
Shrub				
Woodland (coniferous)				
Woodland (deciduous)				

Carbon sequestration - area planned for habitat creation

Broad habitat	Cumulative area (ha)	Low non-traded carbon (£2019)	Medium non-traded carbon (£2019)	High non-traded carbon (£2019)
Arable land				
Grassland				
Heathland				
Shrub				
Woodland (coniferous)				
Woodland (deciduous)				

Water Purification

	Assessment
Qualitative assessment	desalination plant will abstract water from The Solent. The desalinated water will be transferred to WTW 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 has a potential to improve water purification services as dilution of pollutants downstream will increase.

Recreation

Welfare Value (per year)	Estimated visits (per year)

Agricultural

Permanent Loss Estimated agriculture value (£2019)	Temporary Loss Estimated agriculture value (£2019)

Air Quality

Area not within Air Quality Management Area

Natural hazard regulation

Temporary habitat lost during construction (Area within Zol) (ha)

Broad habitat type	Value of natural hazard regulation lost (£2019)
Woodland	
Semi-natural grasslands	
Freshwater	

Permanent habitat loss (ha)

Broad habitat type	Value of natural hazard regulation lost (£2019)
Woodland	
Semi-natural grasslands	
Freshwater	

Area planned for habitat creation (ha)

Broad habitat type	Value of natural hazard regulation gained (£2019)
Woodland	
Semi-natural grasslands	
Freshwater	

to Route 2_No_Sites_Habitat

Element ref	
Element ID	
Element Name	to Route 2_No_Sites_Habitat
Description	
Zone of interest area (ha)	

Stocks and BNG

Broad habitat	Ecosystem services	Temporary habitat lost during construction (Area within Zol) (ha)	Permanent habitat loss (ha)	Area planned for creation (ha)
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				
Urban	No environmental benefits			
Woodland (coniferous)	Timber, carbon sequestration, air quality management, recreation			
Woodland (deciduous)	Timber, carbon sequestration, air quality management, recreation			

Carbon sequestration - within Zol

Broad habitat	Cumulative area (ha)	Low non-traded carbon (£2019)	Medium non-traded carbon (£2019)	High non-traded carbon (£2019)
Arable land				
Grassland				
Heathland				
Shrub				
Woodland (coniferous)				
Woodland (deciduous)				

Carbon sequestration - permanent habitat loss

Broad habitat	Cumulative area (ha)	Low non-traded carbon (£2019)	Medium non-traded carbon (£2019)	High non-traded carbon (£2019)
Arable land				
Grassland				
Heathland				
Shrub				
Woodland (coniferous)				
Woodland (deciduous)				

Carbon sequestration - area planned for habitat creation

Broad habitat	Cumulative area (ha)	Low non-traded carbon (£2019)	Medium non-traded carbon (£2019)	High non-traded carbon (£2019)
Arable land				
Grassland				
Heathland				
Shrub				
Woodland (coniferous)				
Woodland (deciduous)				

Water Purification

	Assessment
Qualitative assessment	desalination plant will abstract water from The Solent. The desalinated water will be transferred to WTW 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 has a potential to improve water purification services as dilution of pollutants downstream will increase.

Recreation

Welfare Value (per year)	Estimated visits (per year)

Agricultural

Permanent Loss Estimated agriculture value (£2019)	Temporary Loss Estimated agriculture value (£2019)

Air Quality

Area not within Air Quality Management Area

Natural hazard regulation

Temporary habitat lost during construction (Area within Zol) (ha)

Broad habitat type	Value of natural hazard regulation lost (£2019)
Woodland	
Semi-natural grasslands	
Freshwater	

Permanent habitat loss (ha)

Broad habitat type	Value of natural hazard regulation lost (£2019)
Woodland	
Semi-natural grasslands	
Freshwater	

Area planned for habitat creation (ha)

Broad habitat type	Value of natural hazard regulation gained (£2019)
Woodland	
Semi-natural grasslands	
Freshwater	

to Route 3 No Sites Habitat

Element ref	
Element ID	
Element Name	to Route_3_No_Sites_Habitat
Description	
Zone of interest area (ha)	

Stocks and BNG

Broad habitat	Ecosystem services	Temporary habitat lost during construction (Area within Zol) (ha)	Permanent habitat loss (ha)	Area planned for habitat creation (ha)
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				
Urban	No environmental benefits			
Woodland (coniferous)	Timber, carbon sequestration, air quality management, recreation			
Woodland (deciduous)	Timber, carbon sequestration, air quality management, recreation			

Carbon sequestration - within Zol

Broad habitat	Cumulative area (ha)	Low non-traded carbon (£2019)	Medium non-traded carbon (£2019)	High non-traded carbon (£2019)
Arable land				
Grassland				
Heathland				
Shrub				
Woodland (coniferous)				
Woodland (deciduous)				

Carbon sequestration - permanent habitat loss

Broad habitat	Cumulative area (ha)	Low non-traded carbon (£2019)	Medium non-traded carbon (£2019)	High non-traded carbon (£2019)
Arable land				
Grassland				
Heathland				
Shrub				
Woodland (coniferous)				
Woodland (deciduous)				

Carbon sequestration - area planned for habitat creation

Broad habitat	Cumulative area (ha)	Low non-traded carbon (£2019)	Medium non-traded carbon (£2019)	High non-traded carbon (£2019)
Arable land				
Grassland				
Heathland				
Shrub				
Woodland (coniferous)				
Woodland (deciduous)				

Water Purification

	Assessment
Qualitative assessment	desalination plant will abstract water from The Solent. The desalinated water will be transferred to WTW 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 has a potential to improve water purification services as dilution of pollutants downstream will increase.

Recreation

Welfare Value (per year)	Estimated visits (per year)

Agricultural

Permanent Loss Estimated agriculture value (£2019)	Temporary Loss Estimated agriculture value (£2019)

Air Quality

Area not within Air Quality Management Area

Natural hazard regulation

Temporary habitat lost during construction (Area within Zol) (ha)

Broad habitat type	Value of natural hazard regulation lost (£2019)
Woodland	
Semi-natural grasslands	
Freshwater	

Permanent habitat loss (ha)

Broad habitat type	Value of natural hazard regulation lost (£2019)
Woodland	
Semi-natural grasslands	
Freshwater	

Area planned for habitat creation (ha)

Broad habitat type	Value of natural hazard regulation gained (£2019)
Woodland	
Semi-natural grasslands	
Freshwater	

to Route 4 No Sites Habitat

Element ref	
Element ID	
Element Name	to Route_4_No_Sites_Habitat
Description	
Zone of interest area (ha)	

Stocks and BNG

Broad habitat	Ecosystem services	Temporary habitat lost during construction (Area within Zol) (ha)	Permanent habitat loss (ha)	Area planned for habitat creation (ha)
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				
Urban	No environmental benefits			
Woodland (coniferous)	Timber, carbon sequestration, air quality management, recreation			
Woodland (deciduous)	Timber, carbon sequestration, air quality management, recreation			

Carbon sequestration - within Zol

Broad habitat	Cumulative area (ha)	Low non-traded carbon (£2019)	Medium non-traded carbon (£2019)	High non-traded carbon (£2019)
Arable land				
Grassland				
Heathland				
Shrub				
Woodland (coniferous)				
Woodland (deciduous)				

Carbon sequestration - permanent habitat loss

Broad habitat	Cumulative area (ha)	Low non-traded carbon (£2019)	Medium non-traded carbon (£2019)	High non-traded carbon (£2019)
Arable land				
Grassland				
Heathland				
Shrub				
Woodland (coniferous)				
Woodland (deciduous)				

Carbon sequestration - area planned for habitat creation

Broad habitat	Cumulative area (ha)	Low non-traded carbon (£2019)	Medium non-traded carbon (£2019)	High non-traded carbon (£2019)
Arable land				
Grassland				
Heathland				
Shrub				
Woodland (coniferous)				
Woodland (deciduous)				

Water Purification

	Assessment
Qualitative assessment	desalination plant will abstract water from The Solent. The desalinated water will be transferred to WTW 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 has a potential to improve water purification services as dilution of pollutants downstream will increase.

Recreation

Welfare Value (per year)	Estimated visits (per year)

Agricultural

Permanent Loss Estimated agriculture value (£2019)	Temporary Loss Estimated agriculture value (£2019)

Air Quality

Area not within Air Quality Management Area

Natural hazard regulation

Temporary habitat lost during construction (Area within Zol) (ha)

Broad habitat type	Value of natural hazard regulation lost (£2019)
Woodland	
Semi-natural grasslands	
Freshwater	

Permanent habitat loss (ha)

Broad habitat type	Value of natural hazard regulation lost (£2019)
Woodland	
Semi-natural grasslands	
Freshwater	

Area planned for habitat creation (ha)

Broad habitat type	Value of natural hazard regulation gained (£2019)
Woodland	
Semi-natural grasslands	
Freshwater	

to Route_SIA_No_Sites_Habitat

Element ref	
Element ID	
Element Name	to Route_SIA_No_Sites_Habitat
Description	
Zone of interest area (ha)	

Stocks and BNG

Broad habitat	Ecosystem services	Temporary habitat lost during construction (Area within Zol) (ha)	Permanent habitat loss (ha)	Area planned for habitat creation (ha)
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				
Urban	No environmental benefits			
Woodland (coniferous)	Timber, carbon sequestration, air quality management, recreation			
Woodland (deciduous)	Timber, carbon sequestration, air quality management, recreation			

Carbon sequestration - within Zol

Broad habitat	Cumulative area (ha)	Low non-traded carbon (£2019)	Medium non-traded carbon (£2019)	High non-traded carbon (£2019)
Arable land				
Grassland				
Heathland				
Shrub				
Woodland (coniferous)				
Woodland (deciduous)				

Carbon sequestration - permanent habitat loss

Broad habitat	Cumulative area (ha)	Low non-traded carbon (£2019)	Medium non-traded carbon (£2019)	High non-traded carbon (£2019)
Arable land				
Grassland				
Heathland				
Shrub				
Woodland (coniferous)				
Woodland (deciduous)				

Carbon sequestration - area planned for habitat creation

Broad habitat	Cumulative area (ha)	Low non-traded carbon (£2019)	Medium non-traded carbon (£2019)	High non-traded carbon (£2019)
Arable land				
Grassland				
Heathland				
Shrub				
Woodland (coniferous)				
Woodland (deciduous)				

Water Purification

	Assessment
Qualitative assessment	desalination plant will abstract water from The Solent. The desalinated water will be transferred to WTW 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 has a potential to improve water purification services as dilution of pollutants downstream will increase.

Recreation

Welfare Value (per year)	Estimated visits (per year)

Agricultural

Permanent Loss Estimated agriculture value (£2019)	Temporary Loss Estimated agriculture value (£2019)

Air Quality

Area not within Air Quality Management Area

Natural hazard regulation

Temporary habitat lost during construction (Area within Zol) (ha)

Broad habitat type	Value of natural hazard regulation lost (£2019)
Woodland	
Semi-natural grasslands	
Freshwater	

Permanent habitat loss (ha)

Broad habitat type	Value of natural hazard regulation lost (£2019)
Woodland	
Semi-natural grasslands	
Freshwater	

Area planned for habitat creation (ha)

Broad habitat type	Value of natural hazard regulation gained (£2019)
Woodland	
Semi-natural grasslands	
Freshwater	

Desalination Habitat

Element ref	
Element ID	
Element Name	Desalination Habitat
Description	
Zone of interest area (ha)	

Stocks and BNG

Broad habitat	Ecosystem services	Temporary habitat lost during construction (Area within Zol) (ha)	Permanent habitat loss (ha)	Area planned for habitat creation (ha)
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			
Wetland				
Marine	Fisheries, recreation, water desalination			
Shrub				
Urban	No environmental benefits			
Woodland (coniferous)	Timber, carbon sequestration, air quality management, recreation			
Woodland (deciduous)	Timber, carbon sequestration, air quality management, recreation			

Carbon sequestration - within Zol

Broad habitat	Cumulative area (ha)	Low non-traded carbon (£2019)	Medium non-traded carbon (£2019)	High non-traded carbon (£2019)
Arable land				
Grassland				
Heathland				
Shrub				
Woodland (coniferous)				
Woodland (deciduous)				

Carbon sequestration - permanent habitat loss

Broad habitat	Cumulative area (ha)	Low non-traded carbon (£2019)	Medium non-traded carbon (£2019)	High non-traded carbon (£2019)
Arable land				
Grassland				
Heathland				
Shrub				
Woodland (coniferous)				
Woodland (deciduous)				

Carbon sequestration - area planned for habitat creation

Broad habitat	Cumulative area (ha)	Low non-traded carbon (£2019)	Medium non-traded carbon (£2019)	High non-traded carbon (£2019)
Arable land				
Grassland				
Heathland				
Shrub				
Woodland (coniferous)				
Woodland (deciduous)				
Wetland				

Water Purification

	Assessment
Qualitative assessment	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, there is no change to water purification services.

Recreation

Welfare Value (per year)	Estimated visits (per year)

Agricultural

Permanent Loss Estimated agriculture value (£2019)	Temporary Loss Estimated agriculture value (£2019)

Air Quality

Area not within Air Quality Management Area

Natural hazard regulation

Temporary habitat lost during construction (Area within Zol) (ha)

Broad habitat type	Value of natural hazard regulation lost (£2019)
Woodland	
Semi-natural grasslands	
Freshwater	

Permanent habitat loss (ha)

Broad habitat type	Value of natural hazard regulation lost (£2019)
Woodland	
Semi-natural grasslands	
Freshwater	

Area planned for habitat creation (ha)

Broad habitat type	Value of natural hazard regulation gained (£2019)
Woodland	
Semi-natural grasslands	
Freshwater	

Desal_D55_Habitat_Including_PS

Element ref	
Element ID	
Element Name	Desal_D55_Habitat_Including_PS
Description	
Zone of interest area (ha)	

Stocks and BNG

Broad habitat	Ecosystem services	Temporary habitat lost during construction (Area within Zol) (ha)	Permanent habitat loss (ha)	Area planned for habitat creation (ha)
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			
Wetland				
Marine	Fisheries, recreation, water desalination			
Shrub				
Urban	No environmental benefits			
Woodland (coniferous)	Timber, carbon sequestration, air quality management, recreation			
Woodland (deciduous)	management, recreation			

Carbon sequestration - within Zol

Broad habitat	Cumulative area (ha)	Low non-traded carbon (£2019)	Medium non-traded carbon (£2019)	High non-traded carbon (£2019)
Arable land				
Grassland				
Heathland				
Shrub				
Woodland (coniferous)				
Woodland (deciduous)				

Carbon sequestration - permanent habitat loss

Broad habitat	Cumulative area (ha)	Low non-traded carbon (£2019)	Medium non-traded carbon (£2019)	High non-traded carbon (£2019)
Arable land				
Grassland				
Heathland				
Shrub				
Woodland (coniferous)				
Woodland (deciduous)				

Carbon sequestration - area planned for habitat creation

Broad habitat	Cumulative area (ha)	Low non-traded carbon (£2019)	Medium non-traded carbon (£2019)	High non-traded carbon (£2019)
Arable land				
Grassland				
Heathland				
Shrub				
Woodland (coniferous)				
Woodland (deciduous)				

Water Purification

	Assessment
Qualitative assessment	The D55 desalination plant will abstract water from The Solent. The Solent is a European Marine Site with Special Protection Area (SPA), Special Area of Conservation (SAC) and Ramsar designations. Therefore, there is a potential impact to water purification services.

Recreation

Welfare Value (per year)	Estimated visits (per year)

Agricultural

Permanent Loss Estimated agriculture value (£2019)	Temporary Loss Estimated agriculture value (£2019)

Air Quality

Area not within Air Quality Management Area

Natural hazard regulation

Temporary habitat lost during construction (Area within Zol) (ha)

Broad habitat type	Value of natural hazard regulation lost (£2019)
Woodland	
Semi-natural grasslands	
Freshwater	

Permanent habitat loss (ha)

Broad habitat type	Value of natural hazard regulation lost (£2019)
Woodland	
Semi-natural grasslands	
Freshwater	

Area planned for habitat creation (ha)

Broad habitat type	Value of natural hazard regulation gained (£2019)
Woodland	
Semi-natural grasslands	
Freshwater	

Desal D55 to [redacted] Route 1

Element ref	
Element ID	
Element Name	Desal_D55_to [redacted] Route 1
Description	
Zone of interest area (ha)	

Stocks and BNG

Broad habitat	Ecosystem services	Temporary habitat lost during construction (Area within ZoI) (ha)	Permanent habitat loss (ha)	Area planned for habitat creation (ha)
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				
Urban	No environmental benefits			
Woodland (coniferous)	Timber, carbon sequestration, air quality management, recreation			
Woodland (deciduous)	Timber, carbon sequestration, air quality management, recreation			

Carbon sequestration - within ZoI

Broad habitat	Cumulative area (ha)	Low non-traded carbon (£2019)	Medium non-traded carbon (£2019)	High non-traded carbon (£2019)
Arable land				
Grassland				
Heathland				
Shrub				
Woodland (coniferous)				
Woodland (deciduous)				

Carbon sequestration - permanent habitat loss

Broad habitat	Cumulative area (ha)	Low non-traded carbon (£2019)	Medium non-traded carbon (£2019)	High non-traded carbon (£2019)
Arable land				
Grassland				
Heathland				
Shrub				
Woodland (coniferous)				
Woodland (deciduous)				

Carbon sequestration - area planned for habitat creation

Broad habitat	Cumulative area (ha)	Low non-traded carbon (£2019)	Medium non-traded carbon (£2019)	High non-traded carbon (£2019)
Arable land				
Grassland				
Heathland				
Shrub				
Woodland (coniferous)				
Woodland (deciduous)				

Water Purification

	Assessment
Qualitative assessment	The D55 desalination plant will abstract water from The Solent. The desalinated water will be transferred to a receiving tank at [redacted] WTW. River Itchen flows nearby and the WFD waterbody is achieving a Moderate status. No change to water purification to waterbodies will occur as the water will be transferred via a pipeline to [redacted] WTW.

Recreation

Welfare Value (per year)	Estimated visits (per year)

Agricultural

Permanent Loss Estimated agriculture value (£2019)	Temporary Loss Estimated agriculture value (£2019)

Air Quality

Area not within Air Quality Management Area

Natural hazard regulation

Temporary habitat lost during construction (Area within ZoI) (ha)

Broad habitat type	Value of natural hazard regulation lost (£2019)
Woodland	
Semi-natural grasslands	
Freshwater	

Permanent habitat loss (ha)

Broad habitat type	Value of natural hazard regulation lost (£2019)
Woodland	
Semi-natural grasslands	
Freshwater	

Area planned for habitat creation (ha)

Broad habitat type	Value of natural hazard regulation gained (£2019)
Woodland	
Semi-natural grasslands	
Freshwater	

Desal D55 to [redacted] Route 2

Element ref	
Element ID	
Element Name	Desal_D55_to [redacted] Route 2
Description	
Zone of interest area (ha)	

Stocks and BNG

Broad habitat	Ecosystem services	Temporary habitat lost during construction (Area within Zol) (ha)	Permanent habitat loss (ha)	Area planned for habitat creation (ha)
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				
Urban	No environmental benefits			
Woodland (coniferous)	Timber, carbon sequestration, air quality management, recreation			
Woodland (deciduous)	Timber, carbon sequestration, air quality management, recreation			

Carbon sequestration - within Zol

Broad habitat	Cumulative area (ha)	Low non-traded carbon (£2019)	Medium non-traded carbon (£2019)	High non-traded carbon (£2019)
Arable land				
Grassland				
Heathland				
Shrub				
Woodland (coniferous)				
Woodland (deciduous)				

Carbon sequestration - permanent habitat loss

Broad habitat	Cumulative area (ha)	Low non-traded carbon (£2019)	Medium non-traded carbon (£2019)	High non-traded carbon (£2019)
Arable land				
Grassland				
Heathland				
Shrub				
Woodland (coniferous)				
Woodland (deciduous)				

Carbon sequestration - area planned for habitat creation

Broad habitat	Cumulative area (ha)	Low non-traded carbon (£2019)	Medium non-traded carbon (£2019)	High non-traded carbon (£2019)
Arable land				
Grassland				
Heathland				
Shrub				
Woodland (coniferous)				
Woodland (deciduous)				

Water Purification

	Assessment
Qualitative assessment	The D55 desalination plant will abstract water from The Solent. The desalinated water will be transferred to a receiving tank at [redacted] WTW. River Itchen flows nearby and the WFD waterbody is achieving a Moderate status. No change to water purification to waterbodies will occur as the water will be transferred via a pipeline to [redacted] WTW.

Recreation

Welfare Value (per year)	Estimated visits (per year)

Agricultural

Permanent Loss Estimated agriculture value (£2019)	Temporary Loss Estimated agriculture value (£2019)

Air Quality

Area not within Air Quality Management Area

Natural hazard regulation

Temporary habitat lost during construction (Area within Zol) (ha)

Broad habitat type	Value of natural hazard regulation lost (£2019)
Woodland	
Semi-natural grasslands	
Freshwater	

Permanent habitat loss (ha)

Broad habitat type	Value of natural hazard regulation lost (£2019)
Woodland	
Semi-natural grasslands	
Freshwater	

Area planned for habitat creation (ha)

Broad habitat type	Value of natural hazard regulation gained (£2019)
Woodland	
Semi-natural grasslands	
Freshwater	

Desal D55 to Route 2

Element ref	
Element ID	
Element Name	
Description	
Zone of interest area (ha)	

Stocks and BNG

Broad habitat	Ecosystem services	Temporary habitat lost during construction (Area within Zol) (ha)	Permanent habitat loss (ha)	Area planned for habitat creation (ha)	Area planned for habitat improvement (ha)
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					
Urban	No environmental benefits				
Woodland (coniferous)	Timber, carbon sequestration, air quality management, recreation				
Woodland (deciduous)	Timber, carbon sequestration, air quality management, recreation				

Carbon sequestration - within Zol

Broad habitat	Cumulative area (ha)	Low non-traded carbon (£2019)	Medium non-traded carbon (£2019)	High non-traded carbon (£2019)
Arable land				
Grassland				
Heathland				
Shrub				
Woodland (coniferous)				
Woodland (deciduous)				

Carbon sequestration - permanent habitat loss

Broad habitat	Cumulative area (ha)	Low non-traded carbon (£2019)	Medium non-traded carbon (£2019)	High non-traded carbon (£2019)
Arable land				
Grassland				
Heathland				
Shrub				
Woodland (coniferous)				
Woodland (deciduous)				

Carbon sequestration - area planned for habitat creation

Broad habitat	Cumulative area (ha)	Low non-traded carbon (£2019)	Medium non-traded carbon (£2019)	High non-traded carbon (£2019)
Arable land				
Grassland				
Heathland				
Shrub				
Woodland (coniferous)				
Woodland (deciduous)				

Water Purification

	Assessment
Qualitative assessment	Water purification services are currently provided by urban and grassland habitats. Water will be abstracted from the marina 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.

Recreation

Welfare Value (per year)	Estimated visits (per year)

Agricultural

Permanent Loss Estimated agriculture value (£2019)	Temporary Loss Estimated agriculture value (£2019)

Air Quality

Area not within Air Quality Management Area

Natural hazard regulation

Temporary habitat lost during construction (Area within Zol) (ha)

Broad habitat type	Value of natural hazard regulation lost (£2019)
Woodland	
Semi-natural grasslands	
Freshwater	

Permanent habitat loss (ha)

Broad habitat type	Value of natural hazard regulation lost (£2019)
Woodland	
Semi-natural grasslands	
Freshwater	

Area planned for habitat creation (ha)

Broad habitat type	Value of natural hazard regulation gained (£2019)
Woodland	
Semi-natural grasslands	
Freshwater	

Desal D55 to Route 2

Element ref	
Element ID	
Element Name	Intake
Description	
Zone of interest area (ha)	

Stocks and BNG

Broad habitat	Ecosystem services	Temporary habitat lost during construction (Area within Zol) (ha)	Permanent habitat loss (ha)	Area planned for habitat creation (ha)
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				
Urban	No environmental benefits			
Woodland (coniferous)	Timber, carbon sequestration, air quality management, recreation			
Woodland (deciduous)	Timber, carbon sequestration, air quality management, recreation			

Carbon sequestration - within Zol

Broad habitat	Cumulative area (ha)	Low non-traded carbon (£2019)	Medium non-traded carbon (£2019)	High non-traded carbon (£2019)
Arable land				
Grassland				
Heathland				
Shrub				
Woodland (coniferous)				
Woodland (deciduous)				

Carbon sequestration - permanent habitat loss

Broad habitat	Cumulative area (ha)	Low non-traded carbon (£2019)	Medium non-traded carbon (£2019)	High non-traded carbon (£2019)
Arable land				
Grassland				
Heathland				
Shrub				
Woodland (coniferous)				
Woodland (deciduous)				

Carbon sequestration - area planned for habitat creation

Broad habitat	Cumulative area (ha)	Low non-traded carbon (£2019)	Medium non-traded carbon (£2019)	High non-traded carbon (£2019)
Arable land				
Grassland				
Heathland				
Shrub				
Woodland (coniferous)				
Woodland (deciduous)				

Water Purification

	Assessment
Qualitative assessment	Water purification services are currently provided by urban and grassland habitats. Water will be transferred into the receiving tanks, therefore there will a negligible impact on water purification services.

Recreation

Welfare Value (per year)	Estimated visits (per year)

Agricultural

Permanent Loss Estimated agriculture value (£2019)	Temporary Loss Estimated agriculture value (£2019)

Air Quality

Area not within Air Quality Management Area

Natural hazard regulation

Temporary habitat lost during construction (Area within Zol) (ha)

Broad habitat type	Value of natural hazard regulation lost (£2019)
Woodland	
Semi-natural grasslands	
Freshwater	

Permanent habitat loss (ha)

Broad habitat type	Value of natural hazard regulation lost (£2019)
Woodland	
Semi-natural grasslands	
Freshwater	

Area planned for habitat creation (ha)

Broad habitat type	Value of natural hazard regulation gained (£2019)
Woodland	
Semi-natural grasslands	
Freshwater	