

General information

Project name	Underground Forest Bergamba	
Project code	UGF-L-010	
Remover	Underground Forest	
Location	Bergambacht, the Netherlands	
Area	0.0788	ha
Start year	2025	
Duration	>1000	years
Holding pool	20%	

Per project

Baseline TEC	0	tCO2
Reference capacity	49	tCO2
LCA emissions	2	tCO2
Storage potential	47	tCO2

Removal certificates

Holding pool	9	
Potential units issued	38	CRCs

icht Hospice

Estimated permanence of removal and storage
Freed up when project is implemented

Above Ground carbon is not removed for the project
Capacity of CO2 storage
Project related emissions
Projection -/- baseline



Field Code	Field name	Size (ha)	Owner	Notes
001	25004 Bergamb	0.0788	Stichting Hospici	Carbon storage rights handed ov

#	Field code	Field	Year	Date	Sample depth	SOC/AGB
001	001	25004 Bergambac	2022	1-1-2022	-	AGB
003		#REF!	#REF!			
005		#REF!	#REF!			
006		#REF!	#REF!			
007		#REF!	#REF!			
008						
009						
010						
011						
012						

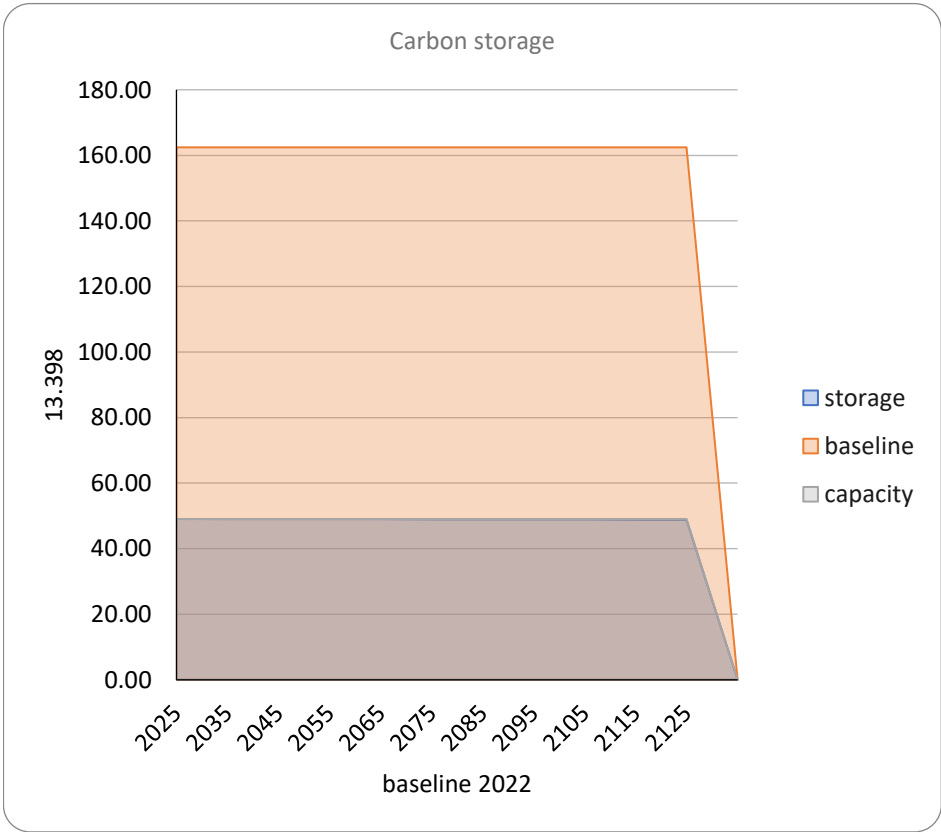
Carbon (g/kg)	AGB (tCO2/ha)	Sample/report nr.	Notes
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-	162.44	ESA	baseline
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Carbon Calculation for UGF-L-010

Surface	0.0788 ha	Fields tab
Baseline AGB	162.44 tCO2e/ha	Measurements tab
Capacity Reference	49.06 tCO2e	References tab

	storage	baseline	capacity
2025	49.06	162.44	49
2035	49.04	162.44	49
2045	49.01	162.44	49
2055	48.99	162.44	49
2065	48.96	162.44	49
2075	48.94	162.44	49
2085	48.91	162.44	49
2095	48.89	162.44	49
2105	48.87	162.44	49
2115	48.84	162.44	49
2125	48.82	162.44	49



Sources

value	source	URL	Notes
CEDA aboveground biomass carbon	https://climate	https://dataceda	2010-2020 data
SOC	A critical review of the conventional SOC to SOM conversion factor		
Density	Wageningen L	https://edepot.w	We've added these soil density leve
From C to CO2	3.666666667		

Yearly degradation 0.00005 <https://www.shr> Klaassen, 2015

Variables	Unit	Source
Density of spruce	460 kg/m ³	https://www.wur.nl/upload_mm/e/b/t
Spruce C content	50.35% C content	https://www.sciencedirect.com/science
Wood moisture content	12.70% water content	https://www.sciencedirect.com/science
CO2e per m3	754 kgCO2/m ³	formula from:
Total volume of spruce	65.11 m3	
Total Underground CO2	49.06 tCO2	
Total amount of wood	30 t	

	Number	Pile length	Pile point (cm)
palenplan	100	13.0	18.0
	19	12.8	18.0
	0	0	0
	0	0	0
	0	0	0
	0	0.0	0.0
	0	0.0	0.0
	0	0.0	0.0
	0	0.0	0.0
More lengths	0	0.0	0.0

Mean point diameter (cm)	18.000	18.000	0.000
Increase per m (cm)	0.800	0.800	0.800
Pile length	13.0	12.8	0.0
Mean measurement point	6.500	6.375	0.000
Mean diameter	0.232	0.231	0.000
Volume pile	0.550	0.534	0.000
Piles per m3	1.820	1.871	#DIV/0!

(Geoderma, Volume 156, Issues 3–4, 15 May 2010, Pages 75-83)
 Is to the calculation factors tab

Corrections
<https://nmbu.brage.unit.no/nmbu-xmlui/bitsthttps://www.agriculturejournals.cz/pdfs/jfs/2007/03/05.pdf>
[e/article/pii/S0378112720310987](#)
[e/article/pii/S0378112720310987](#)
[https://opslagco2inhout.nl/motivatief#:~:text=Hout%2C%20afhankelijk%20van%20de%20soort,stoffen%20\(2%](https://opslagco2inhout.nl/motivatief#:~:text=Hout%2C%20afhankelijk%20van%20de%20soort,stoffen%20(2%20)

Volume per pile (m3)	Volume sum (m3)
0.550	55.0
0.534	10.2
0.000	0
0.000	0
0	0.000
0	0.000
0	0.000
0	0.000
0	0.000
0	0.000
0	0.000

0
0.800
0.0
0.000
0
0.000
#DIV/0!

Total emissions	2.09 tCO2
emissions forestry	0.72 tCO2
emissions transport	0.75 tCO2
emissions piling	0.62 tCO2

Emissions forestry

Wood production emission: 11.1 kgCO2/m3 <https://www.storaenso.com/-/med>

Emission pile driving

	620 kgCO2
Hours per day	8 hr/day
Piles per day	110 piles/day
Piles project	119 piles
Days of work	1 0.5 days
w2w emissions (diesel)	3.2 kgCo2/l
2t2 bensine	2.7 kgCo2/l

Distance 13.5 km Zijdepark 10, Ouderk adlJ
Tussenlaan 13a, 2861 CB Be

Per project

Lowboy	
Lowyboy per km	0.5 l/km
Diesel usage	13.5 l 86.4 kgCO2

Transport Personnel

Bus per km	0.07 /km
Amount of days	1 days
Bensin usage	1.8 l 4.93 kgCO2

Generator AC

Diesel per hour	4 diesel/hour
Per day	32 l/day 110.7781818 kgCO2

Chainsaw

Petrol usage	1 l/u
Hours per day	1 hr/day
Usage per day	1 hr/day 2.96 kgCO2

Emissions Pile driving

Piles per hour	13.75 piles/hr
Pile driver	15 diesel/hr
Diesel per pile	1.09 diesel/pile 415 kg/CO2
Amount of machines	2 machines

Above ground biomass for

surface site	-	m2 removed grassland
surface site	0	hectare
Average Above Ground Biom	1.222	tCO2/ha
compensation for ABG	0.00	tCO2

[ia/documents/download-center/certificates/wood-products-approvals-and-certificates/epd/stora-enso-epd-kvh-](#)

Transport emission 751 kgCO2

Manhay distance	270 km	Tussenlaan 13a, 2861 CB Bergambacht
Empty outward trip	1.5 km	
Total	405 km	
Usage truck	3.45 km/l	
Usage diesel	117 l/rit	
Amount per trip	38 m ³	
Trips	1.7	
Trip rounded	2.0	
Total usage	235 l diesel	

fixed values
calculated fields
variable Rene
info transporter
info UF
fixed rene
fixed transport