

Outside LIFE

The Agency of Nature and Forests (ANB) of the Flemish Government executed within the Belgian part of the project area of LIFE+ FLANDRE between February 2015 and January 2020 over a total superficies of 28,01 ha several actions that are not co-financed by LIFE but that are complementary to the project and add to its impact.



Nr	Location	Type of measures	period	Superficies of potentially restored target habitats (ha)					
				1310-1330	2120	2130*	2160	2180	2190
1	Westhoek-SW	Removal of exotic poplars and other trees	2015			0.83	1.28		0.05
2	Garzebekeveld	Removal of trees and sludge + profiling lakeshore + excavation of pools	2015			0.84		0.30	0.69 + Epidalea calamita 0.06
3	Noordduinen-Fluithoek	Removal of topsoil + excavation of 1 pool	2015			0.40			0.60
4	Ter Yde-Theunisvlakte	Sieving topsoil (rubble and vegetation)	2015		4.05				
5	Westhoek-Krakeelpanne	Removal scrub and topsoil, excavation of pools	2016			0.29			0.60
6	Westhoek-Herenpanne	Removal of scrub and topsoil	2016			0.07			0.60
7	Veldhoek-west	Excavation of pools and wet depressions	2016						Epidalea calamita 0.31
8	Belvedèrduinen	Demolition of constructions	2017			0.05			
9	Houtsaegerduinen	Removal of scrub, trees and topsoil, excavation of pools	2018			4.45		1.00	0.73
10	Westhoek-Noord	Removal of scrub, trees and topsoil	2015			2.89			3.38
11	Simliduinen-Matuvu	Removal of constructions, exotic scrub and topsoil	2018						0.59
12	Westhoek-Centraal loopduin	Manual removal of Sea-buckthorn	2018			1.19			
13	Hannecartbos-Doolaeghe	Removal of artificial tree plantation and topsoil	2018			0.10			1.00
14	Yser-rivermouth	Removal of dredging sludge dump	2019	1.80		0.23			
Total superficies potentially restored habitats				1.80	4.05	11.34	1.28	1.30	8.24 + 0.37

Brief description of the works (figures on the location maps are surface areas of the polygons expressed in are)

1. At De Panne, in the Nature Reserve 'Duinen en Bossen van De Panne', partim 'De Westhoek', adjacent to the Belgian-French border: Removal over a superficies of 2,16 ha of white poplars to restore the targeted habitats '2130* Grey dunes', '2160 Dunes with Hippophaë' and '2190 Humid dune slack'. The works also included the establishment of a grazing unit by the placing of a fence over a circumferential length of 1,2 km, the digging out of a pond (aquatic biotope of targeted species Great Crested Newt) and the removal of several small constructions. Executed from the 19th February until the 23 October 2015.



Photo: removal of White poplars in the 'Westhoek'

**Outside Life
action 01
Westhoek - SW
2015**

outsidelife_operations_vegetation

- existing managed habitat
- open scrub removed
- dense scrub removed
- isolated trees removed
- woodland removed

outsidelife_operations_abiotic

- sod cutting (5-10 cm)
- excavating (10-50 cm)
- creation of pool
- restoration of pool
- increasing soil level
- sieving stones and rubble
- demolition and reprofiling



2. At De Panne-Adinkerke, in the Nature Reserve 'Duinen en Bossen van De Panne', partim 'Garzebekeveld'. Removal of willows and poplars over a superficies of about 1,53 ha, cutting off sods over a superficies of 0,3 ha, removal of sludge from a pool with a superficies of 0,23 ha, digging out of new pools, and placement of a fence with a circumference of 2,3 km to restore the targeted habitats '2130* Grey dunes' and '2190 Humid dune slack' and to provide aquatic habitat to Great Crested Newt. Executed from the 23rd February until the 23 October 2015.



Photo: Garzebekeveld: terrain where sods were cut from and newly placed fence

**Outside Life
action 02
Garzebekeveld
2015**

outsidelife_operations_vegetation

- <all other values>
- existing managed habitat
- open scrub removed
- dense scrub removed
- selected trees removed
- woodland removed

outsidelife_operations_abiotic

- sod cutting (5-10 cm)
- excavating (10-50 cm)
- creation of pool
- restoration of pool
- heightening soil level
- sieving stones and rubble
- demolition and reprofiling



3. At Koksijde: in the Nature Reserve 'Noordduinen', partim 'Fluithoek': Excavation of topsoil to a depth of 30 cm over a superficies of 1 ha to restore the targeted habitat '2190 Humid dune slack' and '2130* Grey dunes'. The works included also the digging out of a large pool as aquatic habitat of Natterjack Toad. Executed from the 5th of October 2015 until the 16th of October 2015.



Photo: excavation of the topsoil at the 'Fluithoek'

**Outside Life
action 03
Noordduinen - Fluithoek
2015**

outsideLife_operations_vegetation

- existing managed habitat
- open scrub removed
- dense scrub removed
- selected trees removed
- woodland removed

outsideLife_operations_abiotic

- sod cutting (5-10 cm)
- excavating (10-50 cm)
- creation of pool
- restoration of pool
- heightening soil level
- sieving stones and rubble
- demolition and reprofiling








4. At Koksijde (Oostduinkerke), in the Nature Reserve 'Ter Yde': Sieving of the sand of the dunes to remove stone rubble and Dewberry (*Rubus caesius*) from it to restore sand drift dynamics and the targeted habitat '2120 White dunes' over a superficies of 4,05 ha. Executed from the 10th August 2015 until the 21st August 2015. This operation was repeated in the summer of 2020 to keep the aeolian sand drift going.










Photo: restauration of white dunes in 'Ter Yde'

**Outside Life
action 04
Ter Yde - Home Theunis
2015**

outsideLife_operations_vegetation

-  existing managed habitat
-  open scrub removed
-  dense scrub removed
-  selected trees removed
-  woodland removed

outsideLife_operations_abiotic

-  sod cutting (5-10 cm)
-  excavating (10-50 cm)
-  creation of pool
-  restoration of pool
-  heightening soil level
-  sieving stones and rubble
-  demolition and reprofiling








5 and 6. At De Panne, in the Nature Reserve 'Duinen en Bossen van De Panne', partim 'De Westhoek', adjacent to the Belgian-French border: Removal of scrub and of the topsoil layer over a total superficies of 1,56 ha to restore 0,36 ha and 1,20 ha of respectively the targeted habitats '2130* Grey dunes' and '2190 Humid dune-slack'. Two slacks were cleared from scrub and 2 pools were excavated to offer aquatic habitat to Natterjack toad and Great Crested Newt. The works were executed from the 22nd of August to the 30th of November 2016.










Photo: 'De Westhoek': restoration of an ancient humid dune slack by removal of scrub followed by cutting off sods.

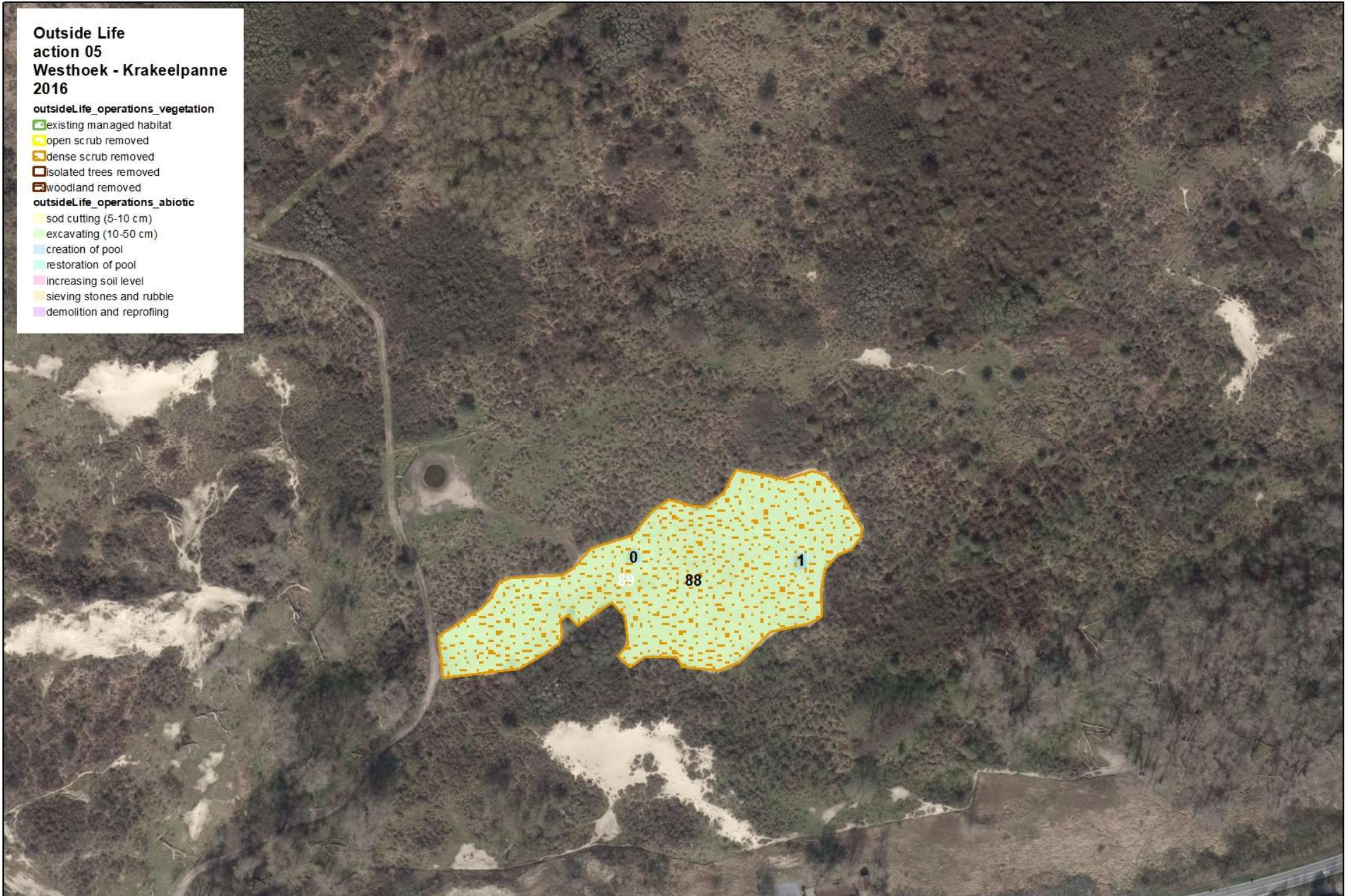
**Outside Life
action 05
Westhoek - Krakeelpanne
2016**

outsidelife_operations_vegetation

-  existing managed habitat
-  open scrub removed
-  dense scrub removed
-  isolated trees removed
-  woodland removed

outsidelife_operations_abiotic



-  sod cutting (5-10 cm)
-  excavating (10-50 cm)
-  creation of pool
-  restoration of pool
-  increasing soil level
-  sieving stones and rubble
-  demolition and reprofiling










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**Outside Life
action 6
Westhoek - Herenpanne
2016**

outsidelife_operations_vegetation

-  existing managed habitat
-  open scrub removed
-  dense scrub removed
-  isolated trees removed
-  woodland removed

outsidelife_operations_abiotic

-  sod cutting (5-10 cm)
-  excavating (10-50 cm)
-  creation of pool
-  restoration of pool
-  increasing soil level
-  sieving stones and rubble
-  demolition and reprofiling



7. At De Panne, in the Nature Reserve 'Duinen en Bossen van De Panne', partim 'Zwarten Hoek' and the ANB-parcel 'Veldhoek': excavation of shallow ditches along the banks of the pond (small lake) 'Drie Vijvers' and of several pools in nearby flat meadows. The 'Zwarten Hoek' is located outside the Natura 2000 – network, but in a dune/polder transition plain that stretches between the 'De Westhoek' (actual coastal dunes) and the 'Cabour Domain' (so called 'fossil' dune ridge), both of which are sub-areas of the SAC 'BE2500001 Duingebieden inclusief IJzermonding en Zwin' and of the Nature Reserve 'Duinen en Bossen van De Panne'. The objective of the works is to provide aquatic habitat for the Natterjack Toad and the Great Crested Newt in order to facilitate migration and gene exchange between the populations of both target amphibian species present in the 'Westhoek' and the 'Cabour Domain'. The shallow ditches and pool provide a 'stepping stone' for migration between 'De Westhoek' and 'Cabour', contributing to the development of an ecological connection between both dune sites that are sub-areas of the same SAC. Total superficies of newly created shallow ditches and pond: 0,49 ha. The works were executed from the 24 August to 6 September 2016.



Photo: newly created shallow ditch along the banks of the pond 'Drie Vijvers' at 'Zwarten Hoek'

**Outside Life
action 07
Veldhoek - West
2016**

outsidelife_operations_vegetation

- existing managed habitat
- open scrub removed
- dense scrub removed
- isolated trees removed
- woodland removed

outsidelife_operations_abiotic

- sod cutting (5-10 cm)
- excavating (10-50 cm)
- creation of pool
- restoration of pool
- heightening soil level
- sieving stones and rubble
- demolition and reprofiling



8. At Koksijde, 'Belvédèreduinén': demolition of 7 small buildings and other constructions to restore habitat type '2130* Grey dunes'. The demolition works were carried out from the 27 September to the 4 October 2017. One derelict construction was not demolished because it offers nesting opportunity to the Garden Dormouse.

Photos: aerial photographs of the concerned part of the 'Belvédère' dune site before and after the demolition of 7 small buildings. The red circles indicate the locations of the buildings that were removed. The central small building (not indicated by a red circle) was spared to provide nesting opportunity for Garden Dormouse.



**Outside Life
action 08
Simpelaereduinen
2017**

outsideLife_operations_vegetation

- existing managed habitat
- open scrub removed
- dense scrub removed
- selected trees removed
- woodland removed

outsideLife_operations_abiotic

- sod cutting (5-10 cm)
- excavating (10-50 cm)
- creation of pool
- restoration of pool
- heightening soil level
- sieving stones and rubble
- demolition and reprofiling



9. At De Panne, in the Nature Reserve 'Duinen en Bossen van De Panne', partim 'Houtsaegerduinen': removal of scrub and white poplars to restore the habitats '2130* Grey dunes' over a superficies of 4,45 ha, '2190 Humid dune slacks' over a superficies of 0,73 ha and '2180 Wooded dunes' over a superficies of 1 ha. Execution of the works: from the 25 January 2017 to the 24 January 2019.



The advisory committee of LIFE+ FLANDRE visits the nearly completed works (please note the crane on the far left of the picture) in the western part of the Houtsaegerduinen on 12 December 2018



Houtsaegerduinen December 2018: restored humid dune slack

Outside Life action 09b-e Houtsaegerduinen - West 2016-2018

outsideLife_operations_vegetation

- existing managed habitat
- open scrub removed
- dense scrub removed
- selected trees removed
- woodland removed

outsideLife_operations_abiotic

- sod cutting (5-10 cm)
- excavating (10-50 cm)
- creation of pool
- restoration of pool
- heightening soil level
- sieving stones and rubble
- demolition and reprofiling

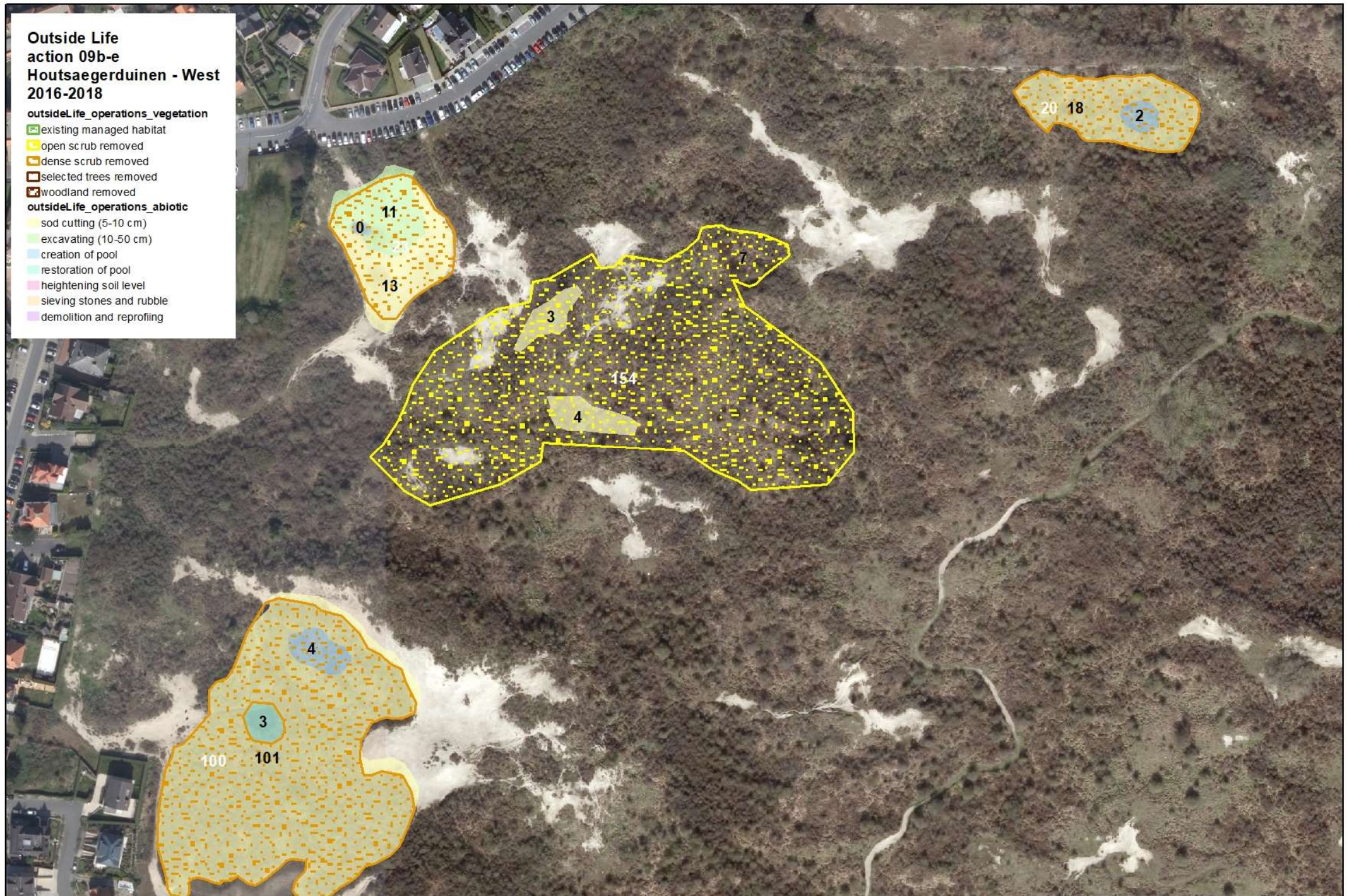




Photo: 'Houtsaegerduinen', eastern part: restoration of '2130 Grey Dunes': after the root shoots of white poplar have been removed, the tall grasses (*Arrhenatherum elatius*, *Holcus lanatus* etc.) were mown and the cuttings manually removed with squeegees.*

**Outside Life
action 09a
Houtsaegerduinen - Oost
2018**

outsideLife_operations_vegetation

- existing managed habitat
- open scrub removed
- dense scrub removed
- selected trees removed
- woodland removed

outsideLife_operations_abiotic

- sod cutting (5-10 cm)
- excavating (10-50 cm)
- creation of pool
- restoration of pool
- heightening soil level
- sieving stones and rubble
- demolition and reprofiling








10 and 12. At De Panne, in the Nature Reserve 'Duinen en Bossen van De Panne', partim 'De Westhoek': removal of scrub, tall grasses (*Calamagrostis epigejos* and reeds (*Phragmites australis*), to restore the habitats '2130* Grey dunes' over a superficies of 4,08 ha and '2190 Humid dune slack' over a superficies of 3,38 ha. Execution of the works: from the 25 January 2017 to the 24 January 2018.










Photo: 'De Westhoek': removal of dense reed vegetation to restore the pioneer stage of the habitat '2190 Humid dune slack'

**Outside Life
action 10a-b
Westhoek
2015-2018**

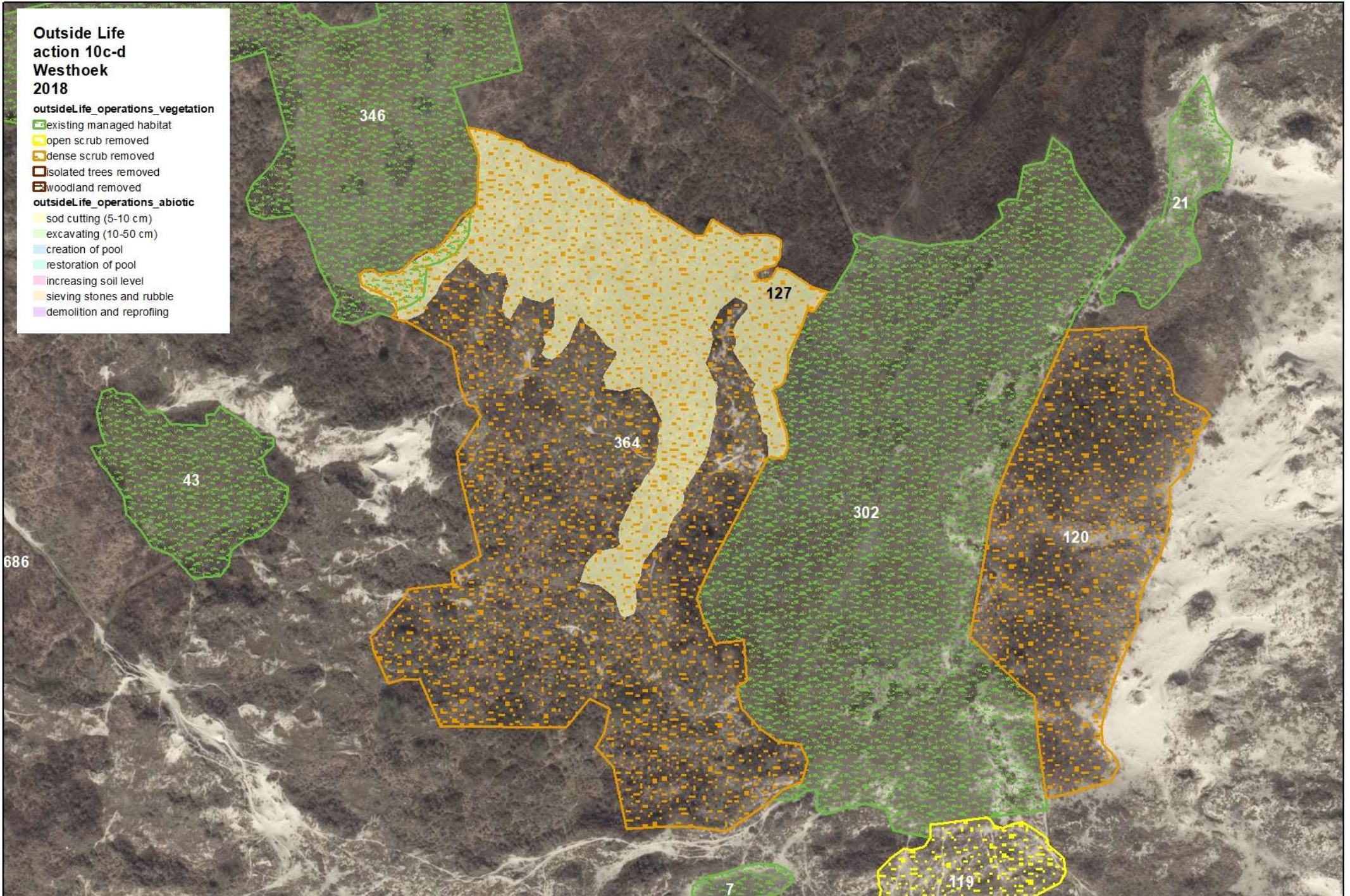
outsidelife_operations_vegetation

-  existing managed habitat
-  open scrub removed
-  dense scrub removed
-  isolated trees removed
-  woodland removed

outsidelife_operations_abiotic

-  sod cutting (5-10 cm)
-  excavating (10-50 cm)
-  creation of pool
-  restoration of pool
-  increasing soil level
-  sieving stones and rubble
-  demolition and reprofiling





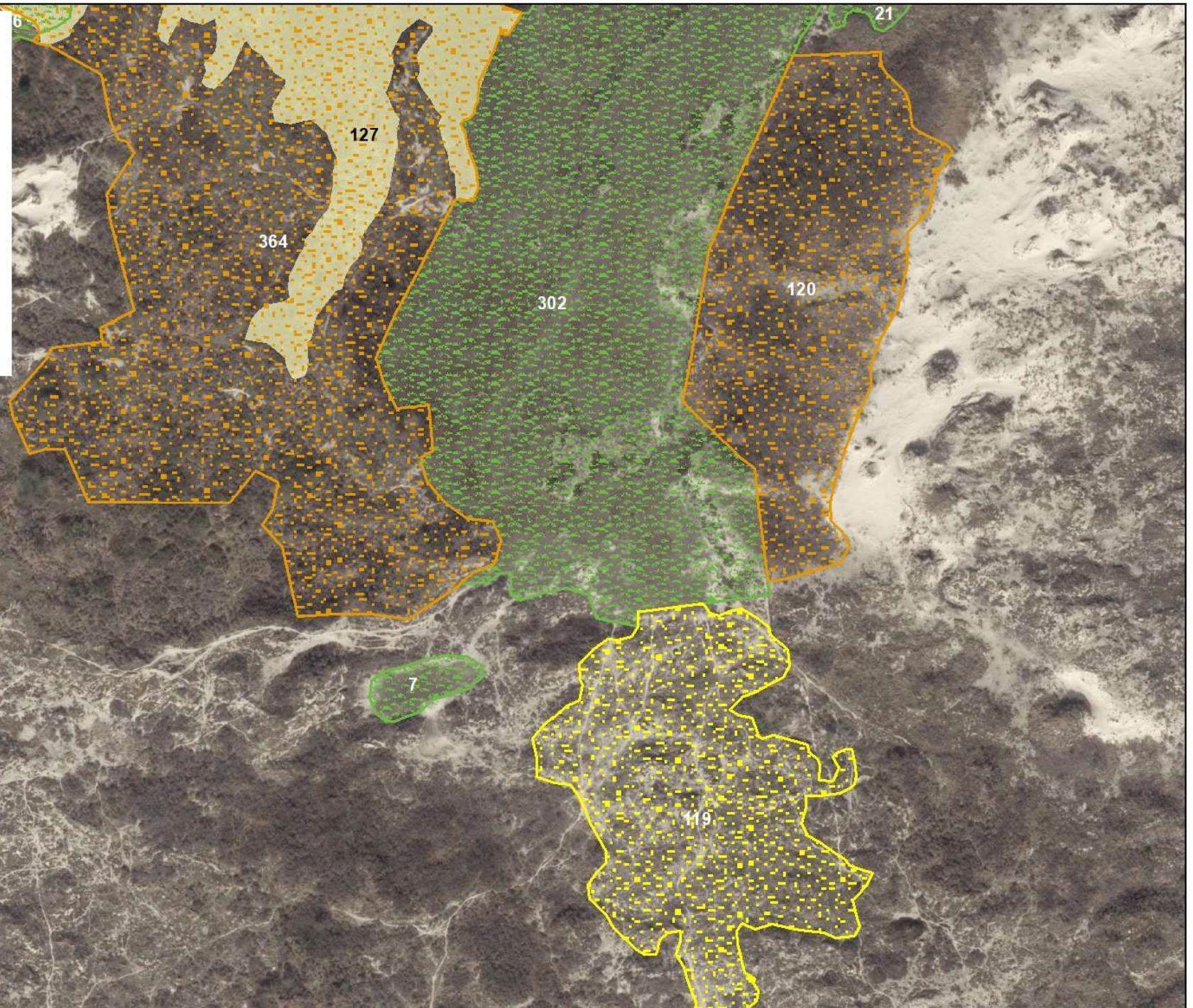
**Outside Life
action 12
Westhoek - Centraal Wandelduin
2016**

outsidelife_operations_vegetation

- existing managed habitat
- open scrub removed
- dense scrub removed
- isolated trees removed
- woodland removed

outsidelife_operations_abiotic

- sod cutting (5-10 cm)
- excavating (10-50 cm)
- creation of pool
- restoration of pool
- increasing soil level
- sieving stones and rubble
- demolition and reprofiling



11. At Nieuwpoort, in the 'Simliduinen' (acquired by the Flemish Region – ANB on 27 January 2017 in the frame of action B.1,: removal of former tennis courts and mini-golf to restore the habitat '2190 Humid dune slack' over a superficies of 0,59 ha.

The removal of the constructions was executed from the 21 February to the 28 September 2019. The removal of the tennis courts and mini-golf to restore a humid dune slack are co-financed by the INTERREG V project VEDETTE, acronym of 'Vers une Ecodestination Transfrontalière d'Excellence', webpage: <https://www.natuurenbos.be/interreg-v-project-vedette>. As the name of the project suggests, this INTERREG V –projects major objectives are oriented towards the eco-touristic and nature-based recreational use of the region between Dunkirk and Westende (not only within the Natura 2000 network). Partners in that project are, besides the 3 LIFE+ FLANDRE project partners, the Province of West-Vlaanderen, the Vlaamse Landmaatschappij, the Communauté Urbaine de Dunkerque, the Centre Permanent d'Initiatives pour l'Environnement (CPIE Flandre maritime) and the Agence d'Urbanisme (AGUR). These partners are all represented in the Advisory Committee of LIFE+FLANDRE. Although rather strongly oriented to eco-tourism and nature-based recreation, the INTERREG V VEDETTE project also includes some conservation actions, such as the restoration of a dune slack by the removal of a sport complex in the 'Simliduinen' at Nieuwpoort and the experimental reactivation of Aeolian sand drift dynamics in the 'De Westhoek' at De Panne. None of these ecological restoration measures were included in the LIFE+ FLANDRE project program.



Photo: removal of tennis courts and minigolf (summer 2019)

The acquisition of two partial areas of the 'Simliduinen' (purchase acts number 7 of 19 December 2014 and number 35 of 27 January 2017) happened in the frame of action B.1 of the LIFE+ FLANDRE project. In the frame of the action A.3 of the same LIFE+ FLANDRE project a management plan was elaborated for, among numerous other sites, the fore-mentioned purchases of land in the 'Simliduinen'. The regular management of the parcels of the 'Simliduinen' that were purchased in the frame of the action B.1, consisting of the placement of piezometers to monitor the phreatic groundwater level in order to evaluate potentialities for the restoration of humid dune slacks, the mowing of dune grasslands and slacks that were encroached with tall grasses, Sea-Buckthorn and Blackthorn scrub and punctual removal of invasive alien plant species, such as Mahonia div. spp and Prunus serotina, are part of action C.7 of the LIFE project FLANDRE that is being implemented by ANB without financial support of LIFE.

Only the removal of the tennis courts and mini golf and the installation of informative welcome panels at the entrances and of a panoramic lookout tower in the 'Simliduinen' are included in the VEDETTE INTERREG V project, that has to be considered as complementary to the LIFE+ Nature project FLANDRE. At the time the LIFE+ FLANDRE project proposal was being elaborated for the first time (2011) not less than 467 ha out of the 2.200 ha (21,2 %) of coastal dunes that are located within the Belgian part of the project area and within the SAC 'BE2500001 Duingebieden (...)' were still privately owned (see form B2a 'General Description of the area/site(s) targeted by the project' on page 21 of the project proposal) . It was then judged financial and organisational feasible to purchase within the project duration of 5 years 30 ha of dunes in the project area. So the action B.1 of the LIFE+ FLANDRE project proposal consisted of the acquisition by the ANB of 30 ha of privately owned dunes within the SAC 'BE2500001 Duingebieden inclusief IJzermonding en Zwin', without prior selection of more specific areas within the project area (containing 467 ha of privately owned dunes). As at the moment of the conception of the LIFE+ FLANDRE project proposal it was not yet known which areas the ANB would be able to purchase within the project duration and the Belgian part of the project area, no specific ecological restoration works for land to be purchased within the frame of action B.1 were included in the project proposal. There was only the general commitment of ANB to provide (without financial support from LIFE) in the frame of action C.7 (see form C1c, page 159 of the project proposal) a suitable nature management (consisting of mowing, grazing, controlling I.A.S. and natural afforestation) to the parcels that were purchased within the frame of action B.1. As at the time of the conception of the LIFE+ FLANDRE project proposal it was not yet known that ANB would succeed before the end of the project duration in acquiring the northern part of the 'Simliduinen', containing the derelict tennis course and mini-golf, it could also not yet be known that these constructions could be removed to restore a humid dune slack at that specific location. So the removal of the derelict tennis courses and mini-golf, the placing of informative welcome signs at the entrances and of a panoramic lookout platform in the 'Simliduinen' were not and are not a part of the LIFE+ FLANDRE project program. Therefore duplication of European funding is excluded. It seems obvious then that these specific ecological restoration works and public access facilities could be included in another European co-funded project that is complementary to LIFE+ FLANDRE.



Photo: restored humid dune slack on 24 March 2020

**Outside Life
action 11
Simliiduinen - Matuvu
2018**

outsideLife_operations_vegetation

- existing managed habitat
- open scrub removed
- dense scrub removed
- selected trees removed
- woodland removed

outsideLife_operations_abiotic

- sod cutting (5-10 cm)
- excavating (10-50 cm)
- creation of pool
- restoration of pool
- heightening soil level
- sieving stones and rubble
- demolition and reprofiling








13. At Koksijde (Oostduinkerke), in the Nature Reserve 'Ter Yde', partim 'Hannecartbos': removal of a stretch of declining Alder plantation along the 'Brook without Name' and clearing of the brook to restore the habitat '2190 Humid dune slack' over a superficies of 1 ha as an extension of the area (6 ha) that had been cleared of alders in the frame of the LIFE Nature project 'FEYDRA' (2002-2005), to successfully restore humid dune slack habitat. Works implemented between 10 September and 4 December 2018.










Photo: removal of a stretch of artificial alder woodland along the banks of the 'Brook without Name' in Hannecartbos at Koksijde (Oostduinkerke).

**Outside Life
action 13
Hannecartbos - Doolaege
2018**

outsideLife_operations_vegetation

-  existing managed habitat
-  open scrub removed
-  dense scrub removed
-  selected trees removed
-  woodland removed

outsideLife_operations_abiotic

-  sod cutting (5-10 cm)
-  excavating (10-50 cm)
-  creation of pool
-  restoration of pool
-  heightening soil level
-  sieving stones and rubble
-  demolition and reprofiling







14. At Nieuwpoort, in the nature reserve 'De IJzermonding' ('Yser-estuary'), the excavation of a former dump of dredged silt to restore the tidal habitats '1130 silt banks' and '1310-1330 Atlantic salt marshes', also resting places of harbour seal and foraging area for numerous wading birds, over an area of 1,80 ha. The works were carried out from 7 January to 4 October 2019.










Photo: the dredging sludge dump is being excavated

**Outside Life
action 14
IJzermondig - Driehoek
2019**

outsideLife_operations_vegetation

-  existing managed habitat
-  open scrub removed
-  dense scrub removed
-  selected trees removed
-  woodland removed

outsideLife_operations_abiotic

-  sod cutting (5-10 cm)
-  excavating (10-50 cm)
-  creation of pool
-  restoration of pool
-  heightening soil level
-  sieving stones and rubble
-  demolition and reprofiling

