

Life DELTA

Action Plan for the Improvement of Habitats of Threatened European Species in the Demer Valley through Broad Cooperation

Project number: LIFE15 NAT/BE/000760

After-LIFE Conservation Plan

December 2023

Natuurpunt Beheer vzw
Coxiestraat 11
2800 Mechelen
Belgium

and partners Vlaamse Milieumaatschappij (VMM), Agentschap Natuur en Bos (ANB)
& Regionaal Landschap Haspengouw en Voeren (RLHV)



**Co-funded by
the European Union**



**VLAAMSE
MILIEUMAATSCHAPPIJ**

**AGENTSCHAP
NATUUR & BOS**



Inhoudstafel

1	PROJECT HISTORY AND ANALYSIS CURRENT SITUATION	4
1.1	History	4
1.2	Objectives LIFE-project	5
1.3	Actions achieved during the LIFE project	7
1.4	SWOT-analysis.....	8
2	DOELSTELLINGEN EN METHODES NA LIFE XXX OBJECTIVES AND METHODS AFTER LIFE	10
2.1	Nature conservation priorities	10
2.2	Project follow-up	10
2.2.1	Professional framework	10
2.2.2	Volunteer work.....	11
2.3	Legal framework	11
2.4	Policy framework	12
2.4.1	Conservation objectives ('Instandhoudingsdoelstellingen').....	12
2.4.2	Flemish Ecological Network ('VEN')	12
2.5	Objectives after LIFE project implementation	13
2.6	Future management strategy and action plan	14
2.6.1	General.....	14
2.6.2	Further land acquisitions.....	14
2.6.3	Long-term management	15
2.6.4	Further conversion management.....	15
2.6.5	Further opening-up	15
2.6.6	Further monitoring	15
2.6.7	Further cooperation and dissemination of results	16
2.7	Financial resources.....	16
2.7.1	Overview of funding management after LIFE project ends	16
2.7.2	Flemish government	17
2.7.3	Own fundraising and sponsoring	18

1 Project history and analysis current situation

1.1 History

The project area lies at the intersection of three Flemish ecoregions, namely the Hageland, Haspengouw and the Kempen. Whereas the first two regions are composed of richer (sandy) loam and chalk soils, the Kempen is a sandy region with much poorer and more meagre biotopes, creating an exceptional variety of abiotics in the project's working area that translates into a special presence of habitats and species.

From these three regions, several streams converge from all corners into the Demer, which forms the backbone of the area. From this therefore resulted a kind of inverted delta structure in both sub-areas of the project area, consisting of triangles of converging streams with a strong overflow regime rather than fanning out river mouths (of the typical delta structure). Thus, real flood zones were created with variable alluvial deposits originating from the above-mentioned regions.

The uniqueness of the project area is characterised by the inland wide open clay polder with associated habitats and species that in the Atlantic biogeographic region only finds its equal in the coastal region of Belgium and to a lesser extent in the Netherlands. Moreover, there is local influence of seepage and many transitions to sandy milieus.

This results in a very biodiverse situation, where the exceptional hydrology together with the traditional openness, which could already be partially restored by previous thorough efforts of the project partners, makes the area ideal for achieving sustainable core populations of the target species. As such, it can strengthen and become a sustainable part of the Natura2000 network. It can thus contribute to the development of strong metapopulations, to the much-needed preservation of key species areas and to an indispensable stepping stone, also for migrants and wintering birds.

The project partners have been working together in the project area for a long time in order to secure as many landscape and nature values as possible. Natuurpunt and ANB have been working for years to develop recognised and designated nature reserves.

Since the early 1990s, Natuurpunt, with the help of local volunteers, has been developing the nature reserve 'Het Schulensbroek' in subarea 1 by acquiring and managing land in order to secure, organise and maintain it for the proposed nature values. This has already created a nice connected core but still lacks important final pieces. In addition to management, volunteers, supported by professionals, have put a lot of effort into small-scale restoration for target species and have been monitoring intensively for years, especially the birds present. This is what we want to actively further work on with this project. Meanwhile, the nature reserve grew to an area of 544 ha, making it one of the top Natuurpunt reserves. This was partly made possible by purchase and management subsidies from the Flemish government within the framework of its nature policy laid down in its 1997 Nature Decree.

Also worth mentioning are the water storage basins around the Schulensmeer (subarea 1) and at Webbekom (subarea 2), which are owned by partner VMM ('Vlaamse Milieumaatschappij'). In the past, efforts were made by partner ANB ('Agentschap Natuur en Bos') with the cooperation of VMM to manage the natural values present as much as possible.

In subarea 1, tenders were issued for the annual nature management, which were carried out by the local division of Natuurpunt. VMM subsequently transferred these parcels, which are centrally located in the nature reserve, structurally to Natuurpunt via a long-term management agreement. It is also in this perspective that the measures to optimise habitat for the target species at and around the Schulensmeer are framed.

In subarea 2, ANB still carries out the management measures itself and the monitoring of many species is done by the volunteer work force tied to the Webbekomsbroek visitor centre. In the mid-2000s, ANB voluntarily expropriated an important block of land in the Webbekom outer basin, on which the dual function of water storage - nature conservation is now also being realised.

In 2013, some additional infrastructure works were also carried out in subarea 2 by VMM, which created a higher level of protection but at the same time produced some mitigating effects on an ecological level (such as faster drainage of the high levels of stored water). This is symbolic for the good and close cooperation around securing European natural values in the Demer flood area between the different partners in the project.

Also in subarea 2, ANB manages the Flemish nature reserve Borchbeemden, with the subareas Rotbroek, Gorenbroek and St-Jansberg, where natural values have been safeguarded and restored wherever possible for years. In the meantime, we have been able to develop beautiful natural cores in this area, which we want to strengthen in this project by focusing on habitats for species such as Corncrake *Crex crex*, Spotted Crake *Porzana porzana* and Marsh Harrier *Circus aeruginosus*.

The 'Regionale Landschap Haspengouw and Voeren' (RLHV), also partner in the project, implements small-scale projects with adjacent residents and municipalities, which complement the objectives of the reserves and also create support for the project area.

In 1994, Natuurpunt already carried out a LIFE project for the 'Protection and habitat restoration for the Corncrake *Crex crex* in Belgium'. This already allowed modest efforts to be made in the project area through site acquisition that was expanded over the years. With this current project, we wished to build on this aiming at the sustainable establishment of a population of Corncrake *Crex crex* as a fully-fledged link in the Natura 2000 network.

1.2 Objectives LIFE-project

The objective of the Life project DELTA was to build sustainable populations of endangered European protected valley species as a stronghold within the Natura 2000 network.

The main target species of the project as Corncrake *Crex crex*, European weather loach *Misgurnus fossilis* and Creeping marshwort *Apium repens* are true flood-bound species. For them, the project area is one of the last strongholds in Flanders. With all partners in the project, we have already been able to experience the possibilities ourselves, given a number of earlier successful experiences with (small-scale) restoration. We wished to build strongly on this. The potential and the objective were also very strongly emphasised when the Flemish government set the conservation objectives for this SPA. We will cite below the importance of this project area for the main species.

For the Birds Directive species Corncrake *Crex crex* and Marsh Harrier *Circus aeruginosus*, in addition to irregular breeding, there are clearly great potentials and targets have been set by the Flemish government in the entire project area. Together with species such as Spotted crane *Porzana porzana*, Bluethroat *Luscinia svecica*, Kingfisher *Alcedo atthis* and a whole series of breeding meadow birds, migrants and wintering birds as listed in the Birds Directive and protected in the Ramsar Convention, these form a clear overarching goal for the entire area. In this respect, besides the open meadow complexes, the presence of the lake 'Schulensmeer' as an important open water feature with great potential in the riparian zones in the area, is certainly worth mentioning.

Specifically for Corncrake *Crex crex*, its Western European importance in the Atlantic biogeographical zone can be indicated from the LIFE projects specifically for this species already

carried out in Belgium and neighbouring Member States in the past. In this context, the specific importance of the westernmost part of the European population was also demonstrated by the Faculté des Sciences of the Université d'Angers (see also support LPO & SOVON). The project will also take maximum advantage of these experiences and connections. The project area itself shows clear good potential for further development of a sustainable population given the presence of a lot of potential habitat, such as flood grasslands (6510), with flood dynamics for the already present breeding bird. As a nature core in densely populated Flanders, the area forms an indispensable link for the Western European area and population. In the valley zone of the Herk river, 'De Vroente' (in subarea 1) hosts one of the last remaining populations in Flanders and even in Europe of the habitat directive species Creeping marshwort *Apium repens*. Given the soil composition of loam with limestone fractions and the age-old grazing dynamics of the common meadow, the species has been able to thrive here, but on a relatively limited area. In the project area, however, there is much potential for its expansion and enhancement, as a priority in the Herk valley, with eventual connection to the adjacent Gete valley. To this end, research has already been carried out by the government with the cooperation of the municipality of Herk-de-Stad, the RLHV and the local nature division, among others, on the optimal form of management. Here, too, we aim to establish a sustainable core population in the European Natura 2000 network.

The presence of habitat directive species European weather loach *Misgurnus fossilis* was detected in several subareas recently. Also for this species, which finds an ideal habitat in the overflow area, the project area has been designated as one of the core areas in the Atlantic biogeographic region where the species still has chances of recovery. In Europe, its importance can only be underlined by the clear sub-division between an Atlantic and Continental population. Given that the Weather loach has a limited dispersal potential and temporary flooding provides an incentive for this, this can only emphasise the value of the project area for the establishment of a sustainable population.

With the creation of the reed and marsh areas at Schulensmeer and the restoration of the ponds in the north-eastern part of Schulensbroek (Subarea 1), the project also specifically addresses the main objectives of the adjacent Central Limburg Pond Area ('Vijvergebied Midden-Limburg'), to which this part of the project area is adjacent. In doing so, it targets a clear potential for pond habitats 3130 Littorelletea uniflorae and/or Isoeto-Nanojuncetea and the already present habitat directive species Floating Water Plantain *Luronium natans* and bird directive species such as Eurasian bittern *Botaurus stellaris* and already breeding Little bittern *Ixobrychus minutus*. For the latter species, together with Marsh Harrier *Circus aeruginosus*, the long shoreline zones of Schulensmeer and the large island represent a very high potential for a wide and varied breeding area with shallow water as a metapopulation and area expansion. This potential estimate was also endorsed when setting the Flemish government's conservation objectives for this SPA. There are also many opportunities for the Weather loach in the lakeshore zones, which will be taken into account as much as possible.

Finally, the area also has clear potential for the Birds Directive species Red-backed shrike *Lanius collurio* and Appendix II species Great crested newt *Triturus cristatus*. In subarea 1 on the south side of Lummensbroek, measures have already been taken to habitate the first species, which is gradually returning as a breeding bird in Flanders. This breeding season (2015), after many years, a first breeding case was recorded in this area. Further targeted restoration, including tall herbe fringe communities (6430) for this critical species, can only strengthen a possible permanent return and sustainable establishment.

The second species, Great crested newt *Triturus cristatus* still occurs at the edge of sub-area 1 outside SPA, at the southern boundary of the project area. With the works surrounding the Oude Herk (action C.2) envisaged in the project, accompanying measures could provide reinforcement for a continued presence of the species.

Finally, the presence of transitional mires and quaking bogs (7140) in subarea 2 should be mentioned as a habitat for Birds Directive species Spotted drake *Porzana porzana* and Red List species Common snipe *Gallinago gallinago*.

In conclusion, the area is extremely important for the target species of this project for the following reason:

- As a floodplain with inland clay polder at the junction of three ecoregions, the project area is a unique abiotic feature in Flanders and the European Atlantic biogeographical region.
- For several of the European protected target species, the area is one of the last strongholds in Flanders and still contains a rare residual population in Flanders and even Western Europe, with great potential for sustainable populations given the hydrology and the flooding dynamics, provided the threats to the habitats are targeted.
- Internationally, it can become a really strong sustainable core area in the Natura 2000 network given the species present and its potential, also in terms of migrants and winterers. Thus, it contributes to the establishment of important sustainable (meta)populations, the conservation or expansion of the area and the creation of indispensable stepping stones in the European Atlantic biogeographic region. In this way, we also contribute to the functioning of Natura 2000 as a pan-European nature network.
- Furthermore, the proposed project benefits biodiversity in general, given the many other species in the area that will benefit from the measures to be taken, so that the project also fits perfectly into the European Horizon2020 framework.

Various actions were also planned to strengthen social support and give the population the opportunity to actively participate in nature restoration.

1.3 Actions achieved during the LIFE project

To achieve the objectives, several actions were realised during the LIFE project. These include preparatory actions, land purchases as well as actions for habitat restoration and increasing public support.

A summary of the actions of the LIFE project is given below:

A. Preparatory actions

- A1 Preparation of ecohydrological study for Schulensbroek subarea
- A2 e-DNA survey of the occurrence of the Weather loach in the project area in function of restoration actions
- A3 Drawing up integrated nature management plans
- A4 Physico-chemical and metric study in and around Schulensmeer, preparatory to implementation of action C1 and C2
- A5 Physico-chemical and archaeological survey, preparatory to implementation of actions C3, C4, C5 and C6
- A6 Elaboration of detailed implementation plans

B. Acquisitions

- B1 Acquisition of land in function of strengthening habitats for target species

C. Restoration actions

- C1 Development of marsh and reed beds in and along Schulensmeer for Marsh Harrier, Eurasian bittern, Little Bittern and Bluethroat
- C2 Optimisation of the hydrology in Schulensbroek for Waether loach, Corncrake and Great crested Newt
- C3 Expansion and restoration of hay and meadow complexes in Schulensbroek as habitats (6510, 6430) for Creeping marshwort, Corncrake and Red-backed shrike

C4 Pond restoration in Schulsbroek as habitat and habitat (3130) for Floating water plantain, Little bittern and Kingfisher

C5 Development of habitats (6510, 6430) and habitat in Webbekomsbroek for Marsh Harrier, Corncrake, Eurasian bittern and Weather loach

C6 Optimisation of hydrology and restoration of transition mires and quaking bogs (7140) in the Borchbeemden as habitat for Spotted Crake and Bluethroat

D. Monitoring of project actions

D1 Monitoring of progress and results in terms of nature objectives

D2 Monitoring of socio-economic impact

E. Communicative and recreational actions

E1 Planning and implementation of broad communication about the project

E2 Realisation of targeted opening of nature targets with high quality nature experiences

E3 Start-up and conduct sustainable and targeted coordination consultations on nature targets

F. Project management

F1 Project management

F2 External accounting

F3 After LIFE conservation plan

1.4 SWOT-analysis

	Strengths	Weaknesses	Opportunities	Threats
Legal-administrative	Large nature area managed by Natuurpunt and ANB	The total area under nature management is still too low compared to the vision areas	Managers are the largest landowner with improved opportunities on the land market	Expansion threatened by spatial zoning agricultural land, tolerated recreation, poor nature policy and limited purchase resources, land prices and limited regular resources.
	Many forms of legal protection (Natura2000, 'VEN'-area, Nature reserve)	Legal protection does not always provide guarantees. Non-legal recreation is tolerated or is not an enforcement priority, impact of farms on SPA with illegal tearing of grassland,... are just some examples.	Follow up legal protection more strictly	Enforcement policy (both local and Flemish authorities) fails, resulting in a "Laissez faire, laissez passer" mentality.
Financial	Natuurpunt receives management subsidies. ANB and VMM have their own management subsidies	Management subsidies are 80% of the standard cost and are only granted after recognition as a nature reserve.	Recognition of additional parcels with attached subsidies New procedures in new legislation	Resources in new system probably insufficient, limited budget increase for drawing up management plan
Socio-economic	Thanks to LIFE, the support base has increased	The support base is not yet large enough	Maintain and increase support base. The Corona measures helped increase the population's acquaintance with nature and awareness, which may be of longer duration.	Collaboration will die out if it is not maintained
	Collaboration with large group of local farmers and private persons	Farmers have their own objectives and many of them are getting older and do not always have successors	Expand collaboration	Collaboration will die out if it is not maintained, number of farmers interested in natural areas is decreasing, often for practical reasons
	Good network of footpaths and cycle paths	Recreation disturbs natural values if not managed properly	Purchasing land to improve the network and ease pressure on nature values	Few funds for nature experience in new Nature Decree

	LIFE Delta has led to awareness of value of valley nature and SPA	Restoration of nature and SPA is not yet seen as a priority by local authorities	Further restoration of nature with broader support	Hard developments within SPA continue
Landscape	Largely intact relief and landscape structure of sub-zones	The idea that there is still a lot of nature, so there is still enough to consume	Increasing social attention for qualitative landscape	Lack of financial resources for development
	Recruiting vision image and strong reference image among volunteer staff	The open valley landscape as a landscape image is largely gone among some of the people.	Cooperation with recreational and other partners	Partial lack of support for a total design according to management vision
	Restoration thanks to LIFE.	The area remains fragmented at edges with great pressure from the environment with visual disturbance	Crucial parcels removed thanks to LIFE can now be connected more easily	Fragmentation and visual disturbance
Abiotics	Variation in (micro-)relief	Lack of micro-relief of part of grasslands	Larger core area and acquisitions provide opportunities for larger-scale restoration	Acidification and eutrophication
	Intact soil structure of sub-areas	Restoration abiotics highly dependent on ownership and partners	Good cooperation model with agriculture	Climatic changes, limited seepage, desiccation
	Locally good groundwater quality	Impaired water quality and quality of ground and surface water	Possible solutions for hydrology	Much dewatering, parts of reclaimed areas still under heavy fertilisation
Fauna and flora	Strong study work since and also before LIFE	Some data not always available	Continued study willingness, new systems for data collection	Residual populations too small, invasive exotics
	Many valuable vegetations and biodiversity	Possible after-effects of species and vegetations	Structural recovery possible on larger scale	Desiccation, drowning, eutrophication, acidification
	Large-scale recovery thanks to LIFE	Fragmentation of target habitats by agriculture, planting and weekend stays	Proven but limited recoverability of various vegetations	Populations still isolated by fragmentation, impoverishment of populations
	Several flagged	Many species only in small residual populations	species Species protection programmes of Flemish government ('SBPs')	Too little follow-up and lack of species-specific action programmes
	Land under management is managed with good results	Still lack of adequate management by other land users as well as own managers	Good cooperation partners in the area	Continued Influx of invasive exotic species
Organisational structure	Strong professional framework; professional support for volunteers	Need for more professional support and resources	Willingness to look for means for professionalisation	Dependence on subsidies to achieve objectives
	Very sustainable model with professionals and volunteers in a good structure	Volunteer engagement is non-committal and depends on many factors	Quality of volunteer structure attracts new people and enables more tasks	Permanent attention needed for attracting new volunteers and capacity building
Recreation	Accessibility greatly improved thanks to LIFE	Infrastructure itself, however, still too poorly developed	Huge attraction for recreation	Huge recreational pressure on the area and inadequate manual enforcement
	Many visitors	Very many visitors and recreationists, some of whom carry out undesirable activities	Zoning of visitors and improvement of the infrastructure is possible	Continuing need for consultation with local authorities on recreation and enforcement, partly in view of the regular appearance of new initiatives

2 Doelstellingen en methodes na LIFE xxx Objectives and methods after LIFE

2.1 Nature conservation priorities

To ensure the long-term conservation of the (restored) habitats after the LIFE project, further management is needed. Establishing management planning for management after the LIFE project will ensure recurrent management by professional and voluntary staff as well as co-operation with farmers.

In addition to proper management of the already restored land, continued efforts are desirable for further habitat restoration. This is necessary to strengthen the already restored habitats and species populations as well as to stop ecological threats to the habitats on the remaining land. Accordingly, further land purchases in the project area are appropriate.

After the LIFE project, the evolution of Natura 2000 habitats and species will continue to be monitored. This will be done according to the monitoring protocols drawn up in the framework of the new legislation on nature management plans (see also chapter 2.6.6).

2.2 Project follow-up

2.2.1 Professional framework

The further follow-up of the project is guaranteed by the permanent staff framework of partners Natuurpunt and ANB in the framework of the management of their nature reserves, and this in cooperation with water manager VMM.

Within Natuurpunt's nature management department, substantive follow-up is carried out by an employee of the planning cell. The planning of management implementation in the field is done by employees of the management implementation cell.

The task of these employees is to continue to guide the voluntary and professional staff after the project with the realisation of purchases, the elaboration of the management plans, monitoring and supervising the concrete actions in the field itself.

In addition, specialised staff within the nature management departments are competent to follow up, for example, purchases, organisation of site work, inventory of species and vegetations.

For the execution of specialised work, use will be made of a professional field team of the social economy company 'Natuur en Landschapszorg'. These teams have extensive knowledge of the terrain in our areas and suitable machinery for carrying out specific management works.

Within ANB, the management measures under the management plan are followed up by the forester in consultation with his regional manager.

For a large part of the implementation, ANB calls on local farmers and external contractors through public tenders. For additional works and management measures, use is made of ANB's own teams of workers with adapted equipment.

For monitoring in the area, the forester is assisted by a driven team of volunteers from the visitor centre.

2.2.2 Volunteer work

There is also the extensive volunteer work of Natuurpunt as an association, which can be called upon permanently for the realisations in the field.

Natuurpunt occupies a unique place in the sector of nature conservation and management in the Flemish (and even European) landscape thanks to the extensive volunteer work that makes it possible that volunteers take on important commitments and responsibilities.

These volunteers are structured into local divisions and management teams and are supported by the professional framework of Natuurpunt. Professional staff from Natuurpunt assist the volunteers in drawing up management plans (vision and management), accessibility regulations, permits, authorisations, project proposals, etc. They also assist in monitoring the nature areas and in the technical implementation of management.

Regular management, daily supervision, contacts with local residents, local police,.... etc. are all done through the front-line contacts maintained by the local volunteers. A professional staff member is often present at the consultation moments. The unique cooperation between volunteer and professional staff ensures great local involvement, resulting in very high support.

2.3 Legal framework

In **subarea 1 Schulensbroek, 544 ha** are currently managed in the nature reserve recognised by the Flemish government

Through the recognition as a nature reserve, the management of the land is done under the supervision of the Flemish government. This is regulated in the Decree of the Flemish government regarding the establishment of the conditions for the recognition of nature reserves and terrain managing nature associations and the granting of subsidies (29.06.1999).

The recognition dossier includes, among other things, a management plan, is approved by the Minister for the Environment via a Ministerial Decree after positive advice from the competent Flemish administrations (including the Agency for Nature and Forest) and can be considered as a contract for the implementation of the management plan.

To this end, the Flemish government has built in several control mechanisms: a obligatory concise annual reporting and an obligatory six-yearly monitoring report.

Through the recognition, Natuurpunt receives subsidies for the management of the nature reserve, for the opening up, for monitoring and subsidies for the execution of exceptional one-off works via the 'Project Subsidy Nature' instrument.

In **subarea 2 Webbekomsbroek and Borchbeemden**, ANB has a management plan for the Flemish nature reserve with an area of **396 ha**.

Monitoring of management measures in the plan area is important to follow up the results of the management carried out on grassland development, forest development, etc. In basic management monitoring, the works carried out are recorded annually and the six-yearly management evaluation at the level of the nature target image is done qualitatively on the basis of the recorded works and a global estimate based on best professional judgment.

Furthermore, birds and mammals are monitored by volunteers. Monitoring dipwells were also installed and commissioned already before the works. Thus, a start was made from a baseline measurement to monitor the effects of increased groundwater levels area-wide.

2.4 Policy framework

2.4.1 Conservation objectives ('Instandhoudingsdoelstellingen')

European nature policy is shaped by the Birds Directive (1979) and the Habitats Directive (1992). Member states must take all necessary measures to achieve a favourable conservation status for European protected habitats and species.

Through the amendment to the Nature Conservation Decree of 19 July 2002, a legal basis was built in by the Flemish government regarding special protection areas, more specifically in articles 36bis and 36ter. Article 36bis relates to the proposal, notification, establishment and designation of special protection areas; article 36b relates to the measures. This amendment to the Nature Conservation Decree ratified the Flemish government's decisions of 17 October 1988 and 24 May 2002, which established a series of respective Birds and Habitats Directive areas. After the habitat directive areas were declared of Community importance by the European Commission in December 2004, Flanders is obliged to proceed to the final "designation" of these areas as special areas of conservation by 2010, accompanied by "priorities".

In order to know the priorities needed to maintain or bring to a favourable state of the habitats and species to be protected in Europe, it is necessary to know the conservation objectives. Member states must develop scientific criteria to determine what "favourable conservation status" for each species or habitat means in practice means exactly. In this context, the INBO (Institute for Nature & Forest Research) in 2008 prepared the report 'Development of criteria for assessing the local conservation status of habitat directive species'. Member states are then required to take the necessary conservation measures to achieve these conservation targets.

As a framework for drawing up conservation objectives for each special protection area, Regional conservation objectives are formulated for the European protected habitats and species in the whole of Flanders (2010). These are the improvement or conservation tasks to maintain, restore or develop a favourable conservation status at the Flemish level for all habitats and species to be protected in the Flemish Region.

The 2007 Habitats Directive report (Paelinckx et al. 2007) indicates the conservation status of the various habitats. This document is part of the basis for developing the conservation objectives at the Flemish level. The regional conservation objectives are described in the draft report 'Regional objectives for the habitats and species of the European Habitats and Birds Directive for Flanders' (INBO).

For the Habitats Directive area 'Demer valley', conservation objectives were set by the Flemish government (S-IHD report, 2014). These conservation objectives also form the basis for the further elaboration of the conservation measures and for assessing to what extent plans and activities within or outside an SPA are permissible and/or require compensation. In addition, these conservation objectives are Natuurpunt's guideline for management and possible future recovery measures in the project area.

2.4.2 Flemish Ecological Network ('VEN')

Regarding spatial planning measures, the further delineation of the Flemish Ecological Network (VEN) is also important. The VEN can help to delineate sufficiently large, well-buffered units of nature in which the environmental quality and surface area required for proper conservation and development of habitats and species can be better guaranteed. The project area is largely included in the already delimited part of the Flemish Ecological Network as a 'Large Nature Unit' (GEN).

2.5 Objectives after LIFE project implementation

Below we briefly define the future objectives for the project area.

The general objective is to maintain and develop a high, area-specific biodiversity in a sufficiently large nature area that is robust enough to provide sustainable habitats for the proposed target species (see also above under LIFE project objectives).

LIFE projects deservedly pay much attention to the 'After life conservation plan' (action F.3). The project partners share the concern that investments in the field should be durable. To ensure the long-term conservation of the habitats of the target species, all lands under the management of Natuurpunt (NP) and ANB will be sustainably managed or designated as nature reserves. The basis for this management is the integrated management plan with the highest protection possible under the Nature Decree, which will be drawn up as part of this LIFE project (action A.3). This management plan guarantees unambiguous and adequate management in the future, partly because an integrated area vision has been drawn up.

The main actions that will be continued in the future are:

1. Continue habitat restoration in the project area.

NP and ANB commit themselves with their partners to continue (in a more modest way) the restoration and development of habitats for the target species in the project area after the LIFE project ends, in order to maximally strengthen the populations of these species.

This will further evolve the project area as one of the important core areas in the Natura 2000 network at Flemish and European level.

Over the years, NP and ANB have built up a lot of experience and a strong tradition of sustainable management, always looking for ways to secure the conservation and restoration of habitats and species' habitats. With the partners, this momentum will continue after this project and we will look for how to play off the strengths of each partner in such a way to achieve the best results together.

Within the framework of the Flemish government's definition of the 'conservation objectives', the partnership is working towards its implementation.

2. Adapted management after transformation management

After carrying out actions C1-C6, grass, marsh and reed lands and ponds will develop as habitats (6510, 6430, 7140, 3130). However, this will still require a lot of effort. We know from experience that, especially in the first five years after implementation of the one-off works, adapted accompanying development management will be needed.

This adapted management will be included in the management plans of the recognised or designated nature reserves after implementation of the one-off works. A permit will then no longer need to be requested to implement this management.

With this structural experience-full operation of both organisations, we ensure the sustainable conservation and development of the valuable habitats for the target species, for which the project area was designated as Special Protection Area.

3. Implementing regular management for sustainable conservation

In this LIFE project, we want to start mowing, pond management and grazing on a fairly large area. NP and ANB are fully aware of the fact that this is an intensive management.

In the field of hay meadow and mowing management of large complexes, we as ANB and NP have extensive experience here, as we already carry out this management on a large scale in Flanders. We work together with farmers whenever possible and try to make this a sustainable story (see also action E.3.2.).

Installing grids for grazing is an important part of the LIFE project. For the grazing itself, we try to cooperate with local farmers as much as possible, but if this is not possible, we use our own

livestock. Replacement of grazing grids can be done with the management subsidies NP receives from the Flemish Region and with the own funds ANB owns for the areas it manages.

ANB and NP own a lot of reserves, especially in the middle of province Limburg where regular pond management is done, especially in the pond area of central Limburg, but also elsewhere in the province. Their structural cooperation and funding will also guarantee continuity of management for the habitats restored in the project.

For the maintenance of the natural recreational facilities, we can call on the Greenspotters of the RLH. This group of volunteers (50 or so spread across South Limburg) actively checks the existing routes on a regular basis and reports bottlenecks, problems and potential. The RLH guarantees sustainable maintenance in cooperation with the municipalities, the province of Limburg and a social economy team.

By combining these approaches, we make sustainable regular management after the LIFE project very realistic and feasible in the long term. In addition, we refer to the sustainable consultations provided for in Action E.3. Hereby, we ensure the sustainable conservation and development of the valuable habitats for the target species, for which the project area was delimited as Special Protection Area.

2.6 Future management strategy and action plan

2.6.1 General

Basis for the further management of the nature reserves are the management plans of partners NP, ANB and VMM. These management plans guarantee unambiguous and adequate management, especially since they elaborate an integral area vision. Through its recognition as a nature reserve, the management of the land is under the control of the Flemish government and Natuurpunt receives subsidies for its management. ANB and VMM can use their own resources for restoration and management measures.

By involving the local volunteer staff of Natuurpunt and by involving local farmers, residents, actors, tourists and the local policy level (municipalities and provinces of Limburg and Flemish Brabant) in the nature reserve, we ensure a social and socio-economic anchoring.

The combination of a stimulating government and the association model, where volunteers commit themselves to land management and are supported by the professional framework, creates a good starting situation for this.

2.6.2 Further land acquisitions

After the end of the project, the partners want to continue to actively acquire land within the areas in order to further increase the area with good nature quality. These purchases will depend on the asking price and supply.

Moreover, for each purchase by Natuurpunt residual financing must be sought because the structural funds from the Flemish government (insofar as they fit within the annual budget) finance on average 75-80% of the purchase and are deployed all over Flanders. Obviously, the purchases will therefore be made in a more modest way than during the LIFE project.

Contacts with the landowners at Natuurpunt will primarily be through the local volunteers. For the processing of the purchase up to and including the execution of the deed of authenticity, they will be assisted by professional employees who will also be responsible for the application of the purchase subsidies. At ANB and VMM, purchases are handled by specialised purchasing departments.

2.6.3 Long-term management

One-off restoration works and targeted recurrent management were carried out on all plots acquired during the LIFE project. Long-term management for the project area after the LIFE project will mainly consist of recurrent grassland, reedbed, marsh, pond and forest management. For grassland management, maximum cooperation will be established with local farmers. We are already working with farmers, who are partly responsible for hayland and hay-meadow management and grazing management. The LIFE project provided an important incentive to consolidate and expand the cooperation, and was very well received by the cooperating farmers.

In areas where farmers are not interested because of the food quality of the vegetation or whose management requires a more specialised effort, mowing and grazing management is carried out in-house. Permanent and temporary grids are used for this purpose.

Detailed management planning is elaborated by the management teams based on the management plan with attention to the specific requirements of the target species regarding space and time.

2.6.4 Further conversion management

All possible actions under the one-off habitat restoration have been fully implemented on the sites acquired during the LIFE project.

On the newly to be acquired plots, however, one-off habitat restoration will have to be carried out as it was done during LIFE project. This will mainly be done with project funds from the Flemish government (Project subsidies Nature) for Natuurpunt and with own funding for the government partners. This will probably be at a slower pace because of the loss of financial support and the intensive framing of LIFE project.

2.6.5 Further opening-up

Regarding opening-up, the necessary actions under the renewed opening-up plans have already been realised in the LIFE project.

After the LIFE project, the maintenance of the opening infrastructure will be taken care of by the professional staff of the partners and the volunteer staff of Natuurpunt. Natuurpunt also receives regular opening subsidies from the Flemish government for this. If there is an approved accessibility regulation, subsidies can also be applied for opening-up projects.

2.6.6 Further monitoring

A monitoring report will be prepared every six years. The monitoring will be carried out by the professional and voluntary staff, as described in 2.1. The preparation of the report itself is the responsibility of the professional staff.

Monitoring of the management measures in the planning area is important to follow up the results of the management carried out on development of the target vegetation such as grasslands, reedbed marshes and forests, among others. In basic management monitoring, the works carried out are recorded annually and the six-yearly management evaluation at the level of the nature target image is done qualitatively on the basis of the recorded works and a global in-estimation based on best professional judgment. In addition, when applicable, indicator lists and species monitoring can also be used for the assessment.

Based on the monitoring, a proposal can always be made to adjust the management conducted. This may affect management measures such as the mowing or grazing regime used. After assessment, measures are continued or adjusted if necessary.

2.6.7 Further cooperation and dissemination of results

The most important fact is that the cooperation of the four partners in this project area will be permanently maintained through a follow-up committee Life Delta, so that the knowledge acquired by the four partners is permanently used, not only in the project area of Life Delta, but in all their projects.

In this context, we naturally refer in the first place to the planned sustainable coordination meetings on water management, agriculture and recreation that were set up as foreseen in Action E.3 and will be followed up on an annual basis.

At the end of the project, the project partners will have a lot of knowledge and expertise among their professional staff on the one hand, and English-language information (including website and layman's report) on the other. It is also the intention to actively disseminate this information, knowledge and expertise to other site management organisations in Europe, especially stream valley management organisations (action E.3.4).

This dissemination will be done mainly through two umbrella organisations:

-BirdLife International: Natuurpunt, together with Natagora, Walloon sister organisation, forms BirdLife Belgium. This is the Belgian partner of the global NGO umbrella organisation.

- Eurosite: Natuurpunt is very actively involved in the operation of Eurosite, the European network of site managers (NGO and GO). Among other things, Natuurpunt has a representative on the Board of Directors of Eurosite and has been active in the Natura Network Initiative from the start.

Through these two organisations, the partners actively participate in various seminars, studies, workshops and conferences. In addition, the association itself organises international symposia and announces them through the channels of BirdLife International and Eurosite.

We want to reach the following organisations and bodies in this way as a function of networking and knowledge/experience exchange:

-site-managing NGOs in Europe: RSPB, NABU, Vereniging Natuurmonumenten, SOVON, LPO, SEO, LBV, The Landscapes, OTOP, MME, Bretagne vivante

-site-managing public bodies in Europe: Staatsbosbeheer, Natural England, Bundesministerium für Umweltschutz, Svenska Naturskyddsforeningen, DIREN.

-valley and/or stream management bodies: water boards, water authorities and local, regional or national stream management authorities

It should also be mentioned here that RLHV also cooperates on a project basis with other NGOs in and outside Flanders (e.g. in Nederlands Limburg, Zeeuws Vlaanderen,...)

2.7 Financial resources

2.7.1 Overview of funding management after LIFE project ends

Table 4: Overview of different actions after LIFE and funding strategy. The actions marked with an asterisk (*) are partly or fully implemented by volunteers.

Action	Financing strategy
*land acquisition for habitat restoration	maximum 90% subsidy Flemish government, supplemented by municipal purchase subsidies, corporate sponsorship, member contributions and own fundraising for Natuurpunt and with own resources for the government partners

annual costs for habitat management	
*maintenance of grazing infrastructure for grazing management	management subsidy Flemish government for Natuurpunt and with own funds for government partners
*Recurrent mowing and grazing management (annual)	Flemish government management subsidy for Natuurpunt and with own resources for the government partners
*Recurrent management of forest habitats	management grant from the Flemish authorities for Natuurpunt and with own resources for the government partners
*management of small-scale landscape elements management	grant from the Flemish authorities for Natuurpunt and with own resources for the government partners
one-off costs for biotope management	
*one-off set-up of new plots	voor de overheidspartners management grant Flemish government, supplemented with subsidies for one-off works, sponsoring and contribution of local division and volunteers for Natuurpunt and with own resources for the government partners
*placement of new grazing infrastructure	management subsidy Flemish government, supplemented by subsidies for one-off works, sponsoring and contribution of local division and volunteers for Natuurpunt and with own means for the government partners
Costs for opening up	
*Walking brochures	opening subsidy Flemish government for Natuurpunt and with own resources for the government partners
*renewal of signs	opening subsidy Flemish government for Natuurpunt and with own means for the government partners
Costs of professional support (not mowing management)	
annual costs for professional support of the volunteers (follow-up purchases and management, agreements with farmers, monitoring, ...)	management subsidy Flemish government, of which mandatory 60% must be spent on personnel costs

2.7.2 Flemish government

Besides the own resources available to the Flemish government for its own management, the financial resources for the management of Natuurpunt's reserves come mainly from management grants from the Flemish government. The Decree on nature conservation and the natural environment of 21 October 1997 and the applicable implementing decrees provide for subsidies for the management of recognised reserves (see 2.3).

Within the annual budget appropriations available and in accordance with the provisions of the decree, the minister awards a grant to Natuurpunt for the purchase, rental, management and supervision, initial restoration, monitoring and exceptional one-off restoration.

2.7.3 Own fundraising and sponsoring

Finally, there is Natuurpunt's own fundraising. Through various sponsoring actions, the central services and the local division of Natuurpunt collect financial resources. These funds are used, among other things, to provide residual funding for the purchase of nature reserves.

In general, the aim is to achieve a balanced mixed financing for maximum security of income to guarantee and optimise management and development.

***Disclaimer:** This project is co-funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or CINEA. Neither the European Union nor the granting authority can be held responsible for them.*