



**LIFE11 ENV/IT/004**

**D7\_Del26 - AFTER LIFE+ program report**

Reporting Date

**31/12/2021**

**Interventi per il miglioramento delle acque e degli habitat  
nella Valle del Lambro (*Lambro vivo*)**

Data Project

<b>Project location</b>	Municipalities of Inverigo, Nibionno, Merone and Veduggio con Colzano
<b>Project start date:</b>	01/06/2012
<b>Project end date:</b>	31/12/2017 <b>Extension date (amendment 3):</b> 31/12/2019
<b>Total budget</b>	€ 3,792,527 (Eligible € 1,422,373)
<b>EC contribution:</b>	€ 566,686
<b>(%) of eligible costs</b>	39.84

Data Beneficiary

<b>Name Beneficiary</b>	Parco Regionale della Valle del Lambro
<b>Contact person</b>	Mr Daniele Giuffré
<b>Postal address</b>	Via Vittorio Veneto, 19, Italy, 20844, Triuggio (MB)
<b>Telephone</b>	+39-0362-970605
<b>Fax:</b>	+39-0362-997045
<b>E-mail</b>	daniele.giuffre@abba.solutions
<b>Project Website</b>	<a href="http://www.lambrovivo.eu">www.lambrovivo.eu</a>

**TABLE OF CONTENTS:**

**1. Table of contents.**

- 2. After LIFE programme ..... 3**
  - 2.1. Actions A1-B1 ..... 5
  - 2.2. Action B2..... 5
  - 2.3. Action B3..... 5
  - 2.4. Actions B4-B5-B6-B7 ..... 6
  - 2.5. Actions D..... 6
    - 2.5.1. Action D1 ..... 6
    - 2.5.2. Action D2 ..... 6
    - 2.5.3. Action D3 ..... 7
    - 2.5.4. Action D4 ..... 7
    - 2.5.5. Action D5 ..... 7
    - 2.5.6. Action D6 ..... 7
    - 2.5.7. Action D7 ..... 7
    - 2.5.8. Action D8 ..... 7
  
- 3. Long term monitoring indicators ..... 8**
  - 3.1. Action A1-B1 ..... 8
  - 3.2. Actions B2 ..... 8
  - 3.3. Actions B3 ..... 9
  - 3.4. Actions B4-B5-B6 ..... 9
  - 3.5. Action B7..... 9
  - 3.6. Action D1 ..... 9
  - 3.7. Action D2 ..... 10
  - 3.8. Action D4 ..... 10
  - 3.9. Action D5 ..... 10
  - 3.10. Action D6 ..... 10
  - 3.11. Action D7 ..... 10
  - 3.12. Action D8 ..... 10
  
- 4. Conclusions ..... 11**

## 2. After LIFE programme

The design and implementation of this ambitious Life project required the mobilization of a significant amount of financial resources that were collected both from the bodies responsible for such matters such as the Lombardy region and to supranational institutions such as the European Union and to private foundations in the context of calls for public purposes.

The theme of the sustainability of the interventions carried out and their future management and maintenance is certainly of fundamental importance as has always been affirmed by the European Commission in the entire development of projects related to the line of financing called Life.

Sustainability, however, must be understood from different points of view:

- 1) an environmental sustainability, that is, the new realizations must ensure a perturbation of the environment in which they have been inserted which can either be quickly reabsorbed (temporary impact) or even has a positive impact;
- 2) a certain level of self-functionality must be guaranteed, which means no need for maintenance, or the person who will ultimately carry out the control, maintenance and care must be well identified;
- 3) the resources that will become necessary and the relative sources for carrying out the ordinary or extraordinary maintenance of these new infrastructures must be clear.

As previously announced, the dissemination actions relating to existing projects on the Lambro river or its river basin will continue to be advertised on the Lambrovivo project website, after the interruption phase of these last two years, on the Social channels specifically open for this project, through the occasional publication of newsletters directed to the mailing list and possibly through the preparation of brochures related to particular events.

These activities, as detailed in the following paragraphs, will be carried out for some years by the Park through the same team that has followed the project in these years, being among the mandates duties in the call "*Servizi di gestione delle attività in ambito idraulico delegate al Parco da enti sovraordinati*" actually assigned until the end of 2022 and to be banned again for the next 3 years.

As regards the financial sustainability of the interventions carried out within the Lambro vivo project, it is necessary to distinguish some solutions according to their function of their financial and technical need.

As already anticipated in the previous reports regarding the infrastructures created in the context of the actions called B2M and B2N their management and maintenance will be guaranteed within the respective financial schedules relating to the integrated water service of the provinces of Como and Lecco by virtue of the agreements signed with the respective managers in the central part of the implementation of the actions. These two infrastructures, among other things, represented the greatest burden in the budget of the Lambrovivo project and are those that require the greatest maintenance and correspondingly the greatest financial resources. On the other hand, when they are taken over by the sewage treatment plant operator, they also have the most certain source of financing available, which is that coming from the tariff. To get an idea of the figures, the annual costs for the maintenance and operation of the systems considering: the management of green areas with the related mowing; machine maintenance; laboratory analyzes carried out on samples; the costs for electricity consumption can be estimated at around € 20,000 for the Nibionno finishing system and € 50,000 for the Merone phyto-purification.

All other interventions carried out within the Lambro vivo project are more attributable to low or no maintenance types. In particular, some mild routine maintenance is expected to be carried out over the next few years aimed at maintaining the vocations attributed to the new areas built. Furthermore, it is possible to hypothesize the possibility of continuing a certain monitoring activity especially on the fauna and microbiological quality component of the water of the Lambro river alongside the commitment to continue collecting and publishing data relating to the water leaving the phytodepuration systems.

The financial resources to support this type of activity can be sought within the agreement already under discussion and awaiting revision and subsequent approval between the Lombardy Region and the Valle Lambro Park for the management of the Fornaci dam which is then the hydraulic intervention that allowed the mobilization of all the resources made available for the realization of the environmental interventions that constituted one of the axes of the Lambrovivo project.

For this type of activity, an annual requirement of no more than € 10,000 (for all areas B4, B5, B6 and B7) is estimated. However, the total amount and type of work must be agreed with the Lombardy Region to establish its effective eligibility.

Some clarifications on how these interventions will be planned and carried out.

Monitoring of their state will be carried out regularly in all areas, for example: the presence of water in the basins; the presence of invasive alien species which can disturb the stability of the embankments or the health of the plantations. The situation of each individual area will therefore be monitored at least quarterly and at the outcome of these inspections, the Valle Lambro Park will schedule ordinary or extraordinary maintenance if necessary, which will subsequently be quantified and entrusted to specialized companies. The Park will anticipate the payments which will be, according to the practice established in recent years, subsequently refunded by the Lombardy Region following the presentation of a regular accounting report. For the monitoring and programming and management of maintenance interventions, the park will employ technicians specialized in the matter.

Faunistic and water quality monitoring activities, if deemed admissible by the Lombardy Region within the aforementioned agreement, will be organized according to the procedures already carried out during the Life project and will conclude each year with the preparation of a special summary report of the results.

The above for the areas of intervention B4, B5, B6 and B7.

As regards the phytodepuration plants attached to the treatment plants of Nibionno and Merone, the relative agreements signed with them stipulate that any extraordinary maintenance is borne by the Park subject to the availability of the Lombardy Region (or other body) to finance those interventions.

Given the extreme uncertainty of the type of interventions that may be necessary, it is not currently possible to indicate for neither the frequency nor the amount.

## **2.1. Actions A1-B1**

The involvement of stakeholders will be maintained through the organization of online dissemination tools (newsletters, social networks, website), conventions, conferences, guided tours, discussion tables, online and live forums.

In particular, privileged communication channels will be maintained with the bodies involved in the project in order to monitor the success of the interventions, their progressive renaturalization, the appreciation of the fauna and, where possible use is foreseen, of the citizens, any degradation phenomena. of the works carried out or of obvious planting failures. The costs will be incurred by the Park, the municipalities and the managers of the sewage treatment plant.

## **2.2. Action B2**

The managers of the purification plants (respectively Como acqua for the Merone plant and Larioreti Holding for Nibionno) have already taken charge of the respective constructed wetlands systems which from that moment on are managed directly by them in accordance with the agreements signed at the time.

The costs estimated are about € 20,000 for the Nibionno finishing system and € 50,000 for the Merone phyto-purification.

The post-LIFE activity of the Park will consist in the continuous monitoring of the overall functioning of the systems intended both in their purely purifying part, through the acquisition of the quality data of the incoming and outgoing water and of the activation days (only in the case di Merone), also following further improvements planned on the plants and the collection network. The vegetation and fauna aspect will also be monitored: in the first case the rooting of the planted aquatic plants must be kept under control, urging the company to replace the failures during the warranty period (minimum 2 years). Particular attention must be paid to the need for mowings and their frequency, the different possibilities of disposal of the mowed material, the possible appearance of other plant species and the possibility of maintaining their presence or not. On the second aspect, namely the fauna population, comparisons will be made with the management and maintenance staff, occasional visits will be made aimed at recognizing any species that may have appeared for which compatibility with the existing ecosystem and its functionality will have to be assessed.<sup>4</sup>

## **2.3. Action B3**

The functioning of the overflow structures on the water network subject to intervention (Roggia di Villa Romanò, Roggia Valletto-Orrido di Inverigo) will continue to be monitored, reporting any maintenance needs to the network manager.

The measures taken by the network manager for the removal of the polluting sources identified during the project and undertaken by virtue of the construction of the works contained therein will be monitored.

The progress of the construction of works planned and already started for the removal of persistent drains on the canal of the Orrido of the Park will also be monitored.

The costs will be incurred by Inverigo municipality and the managers of the sewage treatment plant.

## **2.4. Actions B4-B5-B6-B7**

For all these actions for which renaturalization interventions have been carried out with the formation of aquatic environments where not pre-existing, plantings, ascent routes for fish, etc, the post-LIFE activities will be as follows:

- a) monitoring of the hydrological functioning of the systems understood the persistence of water especially during the dry seasons. For some projects the presence of water will be verified in all seasons, for others a seasonal presence;
- b) Verification of the silting of the basins: the dynamics of solid transport involving the basins created will be monitored with particular attention to those deriving from existing waterways that present a higher level of risk;
- c) monitoring of the vegetation aspect by checking the rooting of the plants, urging the company to replace the failures during the warranty period (minimum 2 years). Attention will be paid to the possible appearance of other plant species and the possibility of maintaining their presence or not;
- d) monitoring of the faunal aspect: occasional visits will be carried out aimed at recognizing any species that may have appeared for which compatibility with the existing ecosystem and its functionality will have to be assessed;
- e) for action B7 in particular: the presence of ichthyofauna in the various sections of the canal and the water quality of the lakes upstream and the canal itself will be monitored occasionally in order to hypothesize any actions for its improvement;
- f) in general: carry out ordinary and extraordinary maintenance interventions on the sites to ensure the functionality of the water basins avoiding their burial and keeping their efficiency.

The costs will be incurred by the Park and the municipalities and are estimated in maximum € 5,000 per year.

## **2.5. Actions D**

Compatibly with the availability of funds, the dissemination activities of the measures adopted for the Lambrovivo project will continue and moments of visits and discussions will be organized on the areas subject to intervention.

The costs will be incurred by the Park and the municipalities.

For further detail see the relative section.

### **2.5.1. Action D1**

The website dedicated to the LIFE11 ENV/IT/004 project has been completed with the last contents and will be maintained as long as provided by the common provisions. The update will be edited by the Park through the same team that has followed the project in these years, being among the mandates duties in the call "*Servizi di gestione delle attività in ambito idraulico delegate al Parco da enti sovraordinati*" actually assigned until the end of 2022 and to be banned again for the next 3 years.

### **2.5.2. Action D2**

The D2 action provides the construction of informative panels to illustrate the project and the expected results.

The state of the panels will be monitored in the next years and in case of damage they will be restored or substituted. These activities will be carried out by the Park through the same team that has followed the project in these years, being among the mandates duties in the call “*Servizi di gestione delle attività in ambito idraulico delegate al Parco da enti sovraordinati*” actually assigned until the end of 2022 and to be banned again for the next 3 years.

### **2.5.3. Action D3**

It was produced 1000 copies of brochure containing a summary of Lambrovivo project, but no more editions are expected.

### **2.5.4. Action D4**

The D4 action provides the creation of a newsletter to be distributed to a mailing list.

We expect to produce some further occasional editions, connected to certain news, probably every six months or annually. These activities will be carried out by the Park through the same team that has followed the project in these years, being among the mandates duties in the call “*Servizi di gestione delle attività in ambito idraulico delegate al Parco da enti sovraordinati*” actually assigned until the end of 2022 and to be banned again for the next 3 years.

### **2.5.5. Action D5**

The D5 action provided the creation of a blog to have direct contact with the stakeholders.

The only channels still active are (on Facebook):

- a page on Lambrovivo project (<https://www.facebook.com/lambrovivo>) with 237 like;
- a group on Lambrovivo (<https://www.facebook.com/groups/forumlambro/>) with 147 members.

The pages will be updated in the future by the Park through the same team that has followed the project in these years, being among the mandates duties in the call “*Servizi di gestione delle attività in ambito idraulico delegate al Parco da enti sovraordinati*” actually assigned until the end of 2022 and to be banned again for the next 3 years.

### **2.5.6. Action D6**

The D6 action provided the organization of workshops and informational meetings for the LIFE project by the coordination staff.

As regards the organization of workshops and meetings relating more or less directly to the Life Lambro vivo project, the Park undertakes to organize further seminars and opportunities for meetings and work and guided openings to the areas created in recent years.

This activity will be carried out by the Park through the same team that has followed the project in these years, being among the mandates duties in the call “*Servizi di gestione delle attività in ambito idraulico delegate al Parco da enti sovraordinati*” actually assigned until the end of 2022 and to be banned again for the next 3 years.

### **2.5.7. Action D7**

The action ended with the realization of the afterLIFE programme and its publication on the website.

### **2.5.8. Action D8**

The action ended with the realization of the brochure and its publication on the website.

### **3. Long term monitoring indicators**

Below are reported the indicators that will be used to monitor the progress of the works carried out in the Lambro vivo project. The monitoring will be carried out in the coming years and will be of a qualitative and quantitative type.

#### **3.1. Action A1-B1**

The monitoring on these actions will be based mainly on these following:

- participation of the representatives of the entities in the moments of community decision-making by the Park bodies;
- active participation of the various bodies making up the Park in initiatives and projects aimed at the environmental recovery of the areas and rivers included within their administrative limits;
- participation of the various representatives of the constituent bodies of the Park to initiatives that specifically concern the Lambro vivo project;
- participation of the Park as a body delegated by the consortium members to the activities of the Northern River Lambro contract;
- involvement of local associations in project initiatives related to the maintenance and care of waterways and surrounding environments.

For all these points the indicators will be:

- a) number of representatives participating to the assemblies;
- b) number of projects promoted by the various bodies making up the Park in the environment;
- c) number of representatives participating to the initiatives about Lambrovivo project or Northern River Lambro contract;
- d) number of initiatives promoted by the Park or directly by the local associations in relations to the maintenance and care of waterways and surrounding environments.

#### **3.2. Actions B2**

The monitoring on these actions will be based on two different aspect:

- monitoring of the use of the specific filter system by the management company. This will be carried out by the park through occasional inspections and meetings with the technicians who deal with the effective management of the plant;
- monitoring the operation of the plant and its performance in terms of purification efficiency. This part will be carried out directly by the technicians who deal with the management of the system.

For all these points the indicators will be:

- a) for the first point: number of inspections and meetings held between the park technicians and the technicians of the management companies of the integrated water service;
- b) for the second point: concentration of the main surface water pollution indicators at the output of the systems, such as suspended solids, COD, BOD, ammonia, nitrites and nitrates, dissolved oxygen, escherichia coli, and their comparison with the input.



### **3.3. Actions B3**

The monitoring on this action will be based on two different aspect:

- occasional monitoring of the correct functioning of the overflow structures insisting on the surface network investigated and subjected of the previous study and intervention;
- monitoring of the interventions implemented or to be implemented in the area of competence relating to the collection sewer infrastructures.

For all these points the indicators will be:

- a) for the first point: number of inspections carried out by the park technicians and the technicians of the municipality;
- b) for the second point: number of inspections and meetings held between the park technicians and the technicians of the management companies of the integrated water service and the municipality;

### **3.4. Actions B4-B5-B6**

The monitoring on these actions will be based on different aspect:

- monitoring of the correct functioning of the derivation structures for supplying the basins (especially for B4 and B6 actions);
- monitoring, especially during springtime and early summertime, of the correct filling of the basins not fed by surface network but exclusively by rain and resurgence waters (especially for B5 action);
- monitoring of the species investigated during the ante and post operam study periods.

For all these points the indicators will be:

- a) for the first two points: number of inspections carried out by the park technicians and the results of their monitoring;
- b) for the second point: number of individuals surveyed during the monitoring operations for the various species already investigated.

### **3.5. Action B7**

The monitoring on this action will be based on different aspect:

- monitoring of the hydraulic efficiency of the restored watercourse, the state of conservation of the works and any need for extraordinary maintenance;
- monitoring of the fishes present along the watercourse and upstream and downstream.

For all these points the indicators will be:

- a) for the first point: number of inspections carried out by the park technicians and the results of their monitoring;
- b) for the second point: number of individuals surveyed during the monitoring operations for the various species already investigated.

### **3.6. Action D1**

The monitoring on this action will be based on the accesses on website.

The indicators will be the number of access on the website and the eventual questions sent to the mail indicated.

### **3.7. Action D2**

The monitoring on this action will be based on different aspect:

- monitoring of the state of conservation of the works and any need for extraordinary maintenance;
- monitoring of the passage of contents to citizenship.

For these points the indicators will be:

- a) for the first point: number of inspections carried out by the park technicians and the results of their monitoring;
- b) for the second point: a little more difficult, but it is possible to monitor the notifications of citizenship about the condition of bulletin boards and their necessity for extraordinary maintenance.

### **3.8. Action D4**

The monitoring on this action will be based on the requests of the new editions of the newsletter.

The indicators will be the number of requests of the new newsletter subtracted of the requests to stop receiving newsletters.

### **3.9. Action D5**

The monitoring on this action will be based on the interaction on the pages indicated.

The indicators will be the number of “likes” on the page and the numbers of contributes made into the page by the administrator and by the visitors.

### **3.10.Action D6**

The monitoring on this action will be based on the requests of the new editions of the newsletter.

The indicators will be the number of requests of the new newsletter subtracted of the requests to stop receiving newsletters.

### **3.11.Action D7**

If possible the monitoring of this actions will be done by counting the number of downloads of the document.

### **3.12.Action D8**

If possible the monitoring of this actions will be done by counting the number of downloads of the document.

#### 4. Conclusions

As regards the financial sustainability of the interventions carried out within the Lambro vivo project, the Lambrovivo project will require a total commitment not exceeding € 100,000 per year for the maintenance of the works carried out. The main contributors will be:

- the managers of the integrated water service (approximately € 70,000);
- the Valle Lambro Park (approximately € 10,000);
- the municipalities (not currently quantifiable).

The dissemination actions will be carried out for some years by the Park through the same team that has followed the project in these years, being among the mandates duties in the call “*Servizi di gestione delle attività in ambito idraulico delegate al Parco da enti sovraordinati*” actually assigned until the end of 2022 and to be banned again for the next 3 years, so there will not be a specific additional financial request for this activity.