



LIFE Project Number
LIFE19 NAT/SE/000333

Progress Report¹
Covering the project activities from 01/01/2021² to 28/02/2023

Reporting Date³
28/02/2023

LIFE PROJECT NAME or Acronym
Ecostreams for LIFE

Data Project

Project location:	The counties of Västerbotten, Västernorrland and Jämtland
Project start date:	01/01/2021
Project end date:	31/12/2026 Extension date: -
Total budget:	17 038 931 €
EU contribution:	9 166 422 €
(%) of eligible costs:	54,91

Data Beneficiary

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¹ Progress Report without any payment request (for Progress Reports with payment request, use the Mid-term Report template)

² Project start date in the case of the first Progress Report, otherwise date since the last reporting period

³ Include the reporting date as foreseen in Form C2 of Annex II of the Grant Agreement or as modified in agreement with the Agency

Section 1 - Overall assessment of the achievements and as to whether the project objectives and work plan are still viable (2 pages max)

Give a specific yet concise summary of the overall progress achieved under all groups of actions;

A-actions

In the beginning of the project, it was a delay in the permit process due to unexpectedly many landowners, long processing times at the environmental court and that some of the baseline data were missing. This have probably affected the first years work plans, but will not affect the workplan in long term and the project is certain of fulfilling the restoration goals as anticipated. The permit process is now running efficiently. During the permit processes, a total of 44 meetings with landowners, FMU's (Fisheries Management Units) and stakeholders have been held. The procurements of entrepreneurs have been working overall well. The training of foremen, coordinators and excavator operators has been held separately in the counties during the covid pandemic, but in 2023 they will be trained together in the county of Västerbotten.

The project has established working groups between the counties for permit processes (A2), road culverts (C5), dam removals (C6), demonstration areas (E3) and management plans (C8). The different working groups will share experience and information to facilitate the work and develop a common working progress.

C- Actions

So far, 21 km of water course have been restored and 162 spawning grounds (total spawning habitat area of 972 m²) have been created in the three counties. That's 15% respectively 34% of the total goals. The counties are satisfied with the restoration result so far. Additionally, plenty of dead wood habitats have been created during restoration practice. This is due to the large number of trees along the rivers and the benefits of large wooden debris in the riparian zone. During demolition of wooden made dams (Action C6) we find suitable habitats for Scapania species and can move them to accurate positions to benefit the species. So far, 21 road culverts have been replaced and 7 dams have been removed in the project, which are approximately 10% respectively 32% of the total goals.

All initially planned eDNA of Freshwater Pearl Mussel sampling of have been carried out during 2021 and 2022. During fall 2022, hemolymph (fluid sample) was collected for genetic analysis and will lead to a genetic strategy for further population strengthening measures. Individuals from all populations are now found in SAA's (Swedish Angler Association / Sportfiskarna) mussel farm in Gothenburg. Two of the populations have already (2022) infected trout and their development is being closely monitored. Cage trials in the field have been carried out, but only succeeded in one watercourse (see deviation report in section 2). During 2022, host fish studies have been carried out at Karlstad University on one mussel from each Moälven and Hemlingsån on one mussel from each water. It turned out that both mussels had salmon as host fish. In 2023, more extensive host fish studies will take place.

D- actions

Different methods have been used to monitor hydromorphology in the project rivers and tributaries. ADCP was used in the tributaries in all the three counties. The method Rhodamine was used in the county of Västerbotten, but the water was too cloudy so it was not a preferable method in those waters. Instead of Rhodamine, Västerbotten used wood shavings, and which worked well. The project used drones to take photographs and films before and after restoration to estimate the increase of rewetted areas, i.e., new habitats. But also, to visualize the results which has been very appreciated.

Standard methods of electrofishing have been used to catch fish before and after restoration. This method has also been used to look for glochidia on the gills of fishes. All electrofishing occasions have succeeded so far. To monitor those fishes that can't be caught by the electrofishing, snorkel surveys have been performed.

Regarding socio-economic impact, the project has developed a survey. Different stakeholders (landowners, FMU:s, municipalities etc) will answer the survey in the beginning and after the project. The results of the surveys will then be presented when the project is finished.

There has been no change or deviation from the KPIs.

E- actions

The project is focusing a lot on communication and has established a dissemination plan. Different marketing materials have been made, for example, notice boards, website, Instagram, and brochures. The project is networking with other LIFE-projects, both in Sweden and abroad, and participates in meetings and seminars. Ecostreams for Life, Rivers of Life and Life Connects have together started a series of digital seminars, held 3 times per year. Target group is people who works in other Life-projects. The topics differs between each seminar and its aim is to give inspiration and discuss methods.

Some of the meetings/seminars the project attended to during 2022: Nordic Baltic Platform Meeting, Vattendagarna, Miljömålsdagarna, Life Connects workshop, FPM workshop (Life Revives) and FishBase Symposium. Ecostreams have also arranged a workshop with the County Administrative Board of Jämtland and Swedish Agency for Marine and Water Management (SwAM). The Swedish Anglers Association (SAA) has brought out school children to the project areas for education in water environments. In 2023 many different activities are planned, for example, a network meeting in Jämtland together with all Life projects in Sweden, a meeting in Gothenburg together with HaV and SAA, workshop in Poland and be a part of Sportfiskemässan in Stockholm. Ecostreams might participate in "Almedalsveckan" which, is held annually in Visby on Gotland, where representatives of both the Swedish political parties as well as all kinds of interest organizations and companies gather and discuss politics and social issues. A plan has been made for dialogue on water forestry interactions and on invasive species. The project works frequently with the platforms on social media and reach out to a lot of people.

F- actions

The county of Västerbotten has hired one more project leader, Mattias Sundqvist. Mattias and Johanna will share the project management role with 50% each. This will be less vulnerable if one of them are sick or away from work for other reasons. To be two project leaders at County Administrative Board of Västerbotten is also a more sustainable way to work as the role can be quite demanding at times.

Section 2 - Identified deviations, problems and corrective actions taken in the period (max 2 pages)

A- actions

The delay of the restoration in the field is mostly due to the permitting process to the court and that some of the baseline data was not collected in the start of the project. The missing baseline data is now collected, and the project is running as planned. For the upcoming years, several permits are approved, and the C-actions will accelerate in progress. However, the project observes a risk in the procurement of machine operators. Some operators do not have the experience needed when it comes to river restoration. The counties have tried to solve this by putting in requirements in the procurement. One of the requirements is to have knowledge concerning water environment.

C- Actions

The project has a fear of a continuous increase of fuel cost for the upcoming years. This will affect the actions C1, C2, C3, C5 and C6. Entrepreneurs have flagged for higher transportation and restoration costs. To cover a part of that during 2022's field season, the project applied for additional funding from SWaM (which is already a co-founder). Some of the restoration work and four road culverts were financed with that contribution. Another aspect that needs attention: the restoration needs are greater than the project first anticipated. Old (i.e., lack of) baseline data/mapping data of the timber floating structures and its legacy have hence ended up in an inadequate estimation of restoration needs in the application. The project wishes to continue to apply for additional co-funding in the following years when opportunities arise to make up for the extra stretches which need to be restored. We urge to fulfill the project goals concerning C-action.

The freshwater pearl mussels in the Moälven water system seem to be somewhat ahead in time regarding the development of glochidia larvae compared to surrounding water. In addition, there are differences between different populations in the Moälven. It became very clear in 2022 when pregnant mussels could only be found in Bölesån. In the other waters, the glochidia had already released and ended up on the trout's gills. The trials must therefore be carried out earlier in the years to come to try to prevent it from occurring again. As the mussels in Västernorrland, in any case at least one population in each system, attach to salmon and not to trout, SAA (Sportfiskarna) must also purchase salmon parr to be able to reproduce mussels in the lab.

The only concern the project has noticed so far concerning Management plans is that some of the municipalities do not have the possibility to take part of the work. However, it is not a necessity for the municipalities to participate to fulfill the Management plan. Hopefully, good communication will change their minds.

D-actions

The method ADCP did not work in bigger water courses or where it more rapid streams due to ADCP-raft was easily overturned and flipped upside-down. It was also expensive to rent, and the data was complicated to analyze. In the end of the project this method will be used again to compare with the data from last year (before-data). However, it's not sure that the result will be good enough as it's not certain that the before-data was acceptable. Drone surveying is a very appreciated method for hydromorphology monitoring. The only problem is the regulations concerning what kind of software that can be used on the County Administrative Boards. It is forbidden to use software with cloud-based storage. However, the CABs are updated on what software to use, and the decision makers are well aware of how important the drones are for the project progress. There might be a change in software soon but it's being tested at the moment. The project is certain of fulfilling this action in a sufficient way. All personnel in the project who will operate drones has taken a drone operator license, which is a new law since 1 of January 2021.

The snorkel surveys only succeeded in the county of Jämtland due to cloudiness in the waters in Västerbotten and Västernorrland. More surveys than planned will be performed in Jämtland to compensate for the lost surveys in the other counties. The surveys in Jämtland will represent the results for the whole project.

F-actions, Project management

Misunderstanding is a risk in the project since there are long distances between the counties and project leaders. To minimize that risk, the project leaders try to see each other as much as possible during the project. Johanna came back to work after parental leave and sick leave last autumn and Mattias stepped in as 50% from 01-01-2023. A project coach was hired during a couple of days to help the group (Johanna, Anna, Mattias and Madelen) with the cohesion.

Billerud has started an application of partner change, given that there will never be any economic activity concerning Ecostreams in BillerudKorsnäs Aktiebolag. They want to apply to make an amendment of partner change from BillerudKorsnäs Aktiebolag to BillerudKorsnäs Skog och Industri AB and change the affiliated company from Fastighetsbolaget Marma Skog 31 to AB Marmaskog 76. This process has started, and it has taken a lot of time from both Billerud and project management. The amendment will be done during spring 2023.

Delayed milestones:

- First permit acquired from environmental court was delayed due to long processing time.
- The counties have established their own reference groups to have a dialogue around the C-actions in a local perspective. The county of Västernorrland has a bit of a struggle to find a suitable reference group. The other counties will help and Västernorrland has a good communication with the FMU:s.

An error has been discovered in e-proposal, two actions have switched place with each other (E2 and E3). The project is concerned if this might complicate things further on? The project will continue to report the Replicability and transferability plan on action E2 and Demonstration areas on action E3 as usual.