



LIFE Project Number
LIFE10 NAT/SI/142

Progress Report
Covering the project activities from 01/10/2012 to 31/12/2012

Reporting Date
31.01.2013

LIFE+ PROJECT NAME or Acronym
**Restoration of the Ljubljanica River corridor and
improvement of the river's flow regime**

Data Project

Project location	Ljubljana, Slovenia
Project start date:	01/01/2012
Project end date:	31/12/2015 Extension date: -
Total budget	1.188.015,00 €
EC contribution:	584.382,00 €
(%) of eligible costs	59%

Data Beneficiary

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1 List of abbreviations

MKO	... Ministry of Agriculture and the Environment
MOL	... Municipality of Ljubljana
UL	... University of Ljubljana

2 Executive summary

2.1 General progress

During the reporting period (October – December 2012), the project has come to a full implementation stage. Partners have involved their resources and have defined the actual implementation plan. During this period all key activities, relevant for the project have been successfully kick-started.

All key measures, specified in the grant agreement have been successfully launched. The dynamics of the implementation is in line with project timetable, except the Actions A1 and E4. The reasons for delays, and the proposed extensions are elaborated later in this progress report.

At the time of this progress report no significant obstacles are envisaged.

To perform the planned actions, we have intensively communicated with all partners, and have collected a lot of working material. Some data, collected in the field and from other sources, has been integrated into GIS system. There has been a lot of external communication with national, regional and local institutions, and other stakeholders, relevant for the project implementation, especially fisheries associations and other nongovernmental organizations.

This was a key element to assure further smooth implementation of key project activities, and to locate potential problems and challenges to be addressed during the implementation.

2.2 Assessment as to whether the project objectives and work plan are still viable

The achievement of project objectives is feasible and still viable.

We have developed a common technical language and easy communication among the partners (same locations names, project orientation elements...). Every partner had been delegated specific role in the project, but all participants needed half a year to know details and to feel comfortable. The joined group field visits have been crucial for the start of the project. We have developed mutual respect among partners. The clarification of certain issues, related to financial management of the project, the procedures, the division of tasks among partners and overall project management issues has taken quite a lot of energy, as the common interests and interests of all partners and stakeholders needed to be respected.

General agreement among partners has been reached, to cooperate closely in implementation of all key Actions. If relevant, the project partners agreed to delegate responsibilities and activities among them, all in the best interests of the project.

So far, we evaluate that the approach and methodology are successful.

2.3 Problems encountered

- Problems or difficulties encountered or foreseen and their implications for future actions. They may be technical (equipment delivery is delayed, construction of infrastructure takes longer than anticipated), financial (the costs are not likely to correspond with the budgeted amounts) or organisational (role of partners are changing). The beneficiary should also provide an assessment to what extent these problems will affect the timely completion of the project, and describe the measures taken or foreseen to overcome or alleviate the problems in question.

During the implementation of the project, the weaknesses of the project team in certain areas has been identified, especially linked to the LIFE+ rules and procedures, reporting (as evident from preparation of the inception report), financial management, and communication. It was decided by the partners to engage relevant expert to raise the capacities of the project team in these areas. By this decision project team intends to alleviate such problems will not continue and thus endanger the project implementation.

During the last quarter of 2012 it became evident, that, in financial part of project proposal, the composition of the Form F1 – Direct Personnel costs do not correspond to agreed implementation plan in lines allocated for Actions C1, C2 in responsibility of partner No.3 “Purgator”.

Initial proposal has envisaged part time engagements of series of specialists (director, administrator, accountant, calculant, designer, technician, site manager, geodesist, worker), where individual contribution would be on a part time basis.

The proposed structure does not correspond to actual capacities of the partner “Purgator”, who is a small company with small number of employees.

In order to assure project implementation the budget lines under Direct Personnel Costs for Beneficiary No.3 should be grouped, while the whole amount of allocated funds remains the same.

By introducing this change, project partner will assure better implementation of the project, as the personnel allocated to the project will have a full concentration on the project, not being burdened with other tasks and assignments.

We are late in purchasing monitoring equipment (3D velocity meter) due to the complex public procurement procedures (public tender). However, the delay is not significant. Due the contract we expect the equipment to arrive in beginning in February.

Only workshop (action E4) postponed for next year, because II.nd International Hutch Symposium was held in Łopuszna (49.47890N, 20.13348E), Poland, on 19th-22nd September 2012. We planned to organise worksop on April 13th. 2013.

- If the project seems likely to become/stay behind schedule, please indicate this clearly. The beneficiary must signal changes to the baseline implementation programme.

In terms of achieving the objectives is no major problem, except look:

Request for Technical Change (5.1.1 Action A1 In Preliminary studies)

3 Administrative part

- Describe what the project manager and other representatives of the coordinating beneficiary have done to organise/co-ordinate the project: meetings, seminars etc. What the associated beneficiaries have done.

Description of project management

We have several project meetings with beneficiary partners; MSc Andrej Vidmar (UL FGG), prof. Dr. Mitja Brilly (UL FGG), MSc Zoran Stojič (Geateh) and Matej Stegel (Purgator).

10/10/2012 – Meeting at the Ministry of Agriculture and the Environment

Attendance: Stane Pajk and Damjan Rogelj (Ministry of Agriculture and the Environment, Slovenian Environment Agency), Julijana Lebez Lozej and Jelena Hladnik (Ministry of Agriculture and the Environment), Anja Oven (Ljubljansko barje Landscape Park), Mitja Brilly, Andrej Vidmar, Maja Koprivšek (all University of Ljubljana)

The progress and problems on the project were discussed. University of Ljubljana presented the project to the representative of the Ljubljansko barje Landscape Park. The Park expressed interest to participate in the project in the role of public awareness raising.

13/11/2012 – Steering committee meeting at the UL Faculty of Civil and Geodetic Engineering

Attendance: Zoran Stojič (Geateh), Ivan Stanič (Municipality of Ljubljana), Metod Dolinšek, Matej Stegel (Purgator), Mitja Brilly, Andrej Vidmar, Maja Koprivšek (all University of Ljubljana)

The implementation of specific actions was discussed and some topics with the Municipality of Ljubljana were clarified.



Figure : Steering Group meeting

21/11/2012 – Meeting at fishing club Barje with fishermen from fishing clubs CO Ljubljana

Attendance: Andrej Vidmar (University of Ljubljana), Simon Jurečič, Matej Magajna, Teodor Gantar, Ivan Dragan, Branko Čebokli in Ismet Krdedlić (all Fishing Club Barje), Augustin Weiss (Fishing Club Vevče) and Tomi Leon (Geateh)

The main purpose of the meeting was to present the project to the representatives of all fishing clubs on the Ljubljana River.



Figure : Meeting with Ljubljana district Angling Clubs (RD Barje, RD Vrhnika, RD Dolomiti and RD Vevče)

9/1/2013 – Working session at the Ministry of Agriculture and the Environment:

Attendance: Andrej Vidmar (UL FGG), Mitja Brilly (UL FGG), Matej Stegel (Purgator), Zoran Stojič (Geateh), Julijana Lebez Lozej (MKO), Janez Kastelic (MKO ARSO), Janez Pajk (MKO ARSO), Damjan Rogelj (MKO ARSO)

Joint short-term campaigns were defined.

15/1/2013 - A regular visit of external monitor is made

Attendance: Mitja Kaligarič (Astrale, outside controller for Slovenia), Andrej Vidmar (UL FGG), Mitja Brilly (UL FGG), Maja Koprivšek (UL FGG), Matej Stegel (Purgator), Metod Dolinšek (Purgator), Zoran Stojič (Geateh), Tomi Leon (Geateh), Julijana Lebez Lozej (MKO),

The meeting reviewed the progress on the project.

We have some visits and meeting with stakeholders; with director of paper mill “Papirnica Vevče” and with responsible engineer on JP VODOVOD - KANALIZACIJA d.o.o.

We have organized meeting with responsible person in Ministry of finance regarding some questions about public tenders needed in the project.

- Describe any changes in the project's management structure; partner withdrawn, replaced, etc. Please note that the Commission also must be informed of major modifications in separate notes (cf. CP Art 13).

There were no changes in the project's management structure.

- A clear informative organigramme of the project team and the project management structure.

Organigramme of the project team and the project management structure

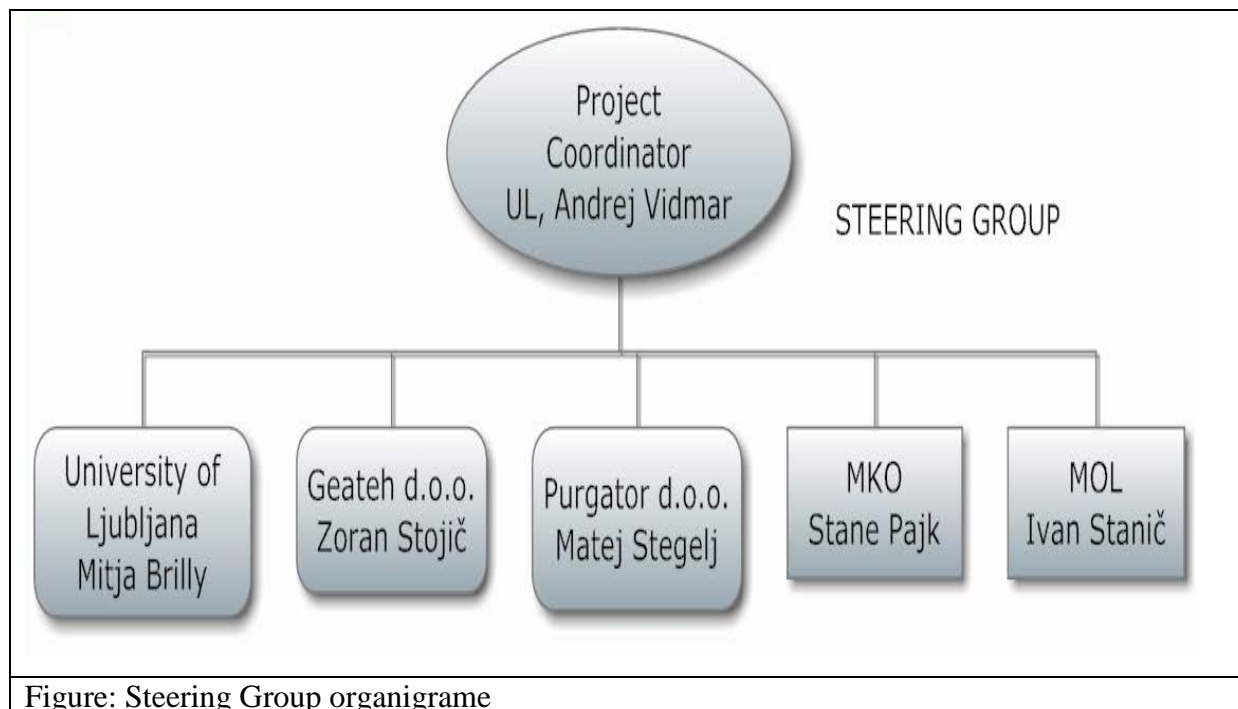


Figure: Steering Group organigramme

The Steering Committee was established with members:
Andrej Vidmar (UL FGG),
Mitja Brilly (UL FGG),
Zoran Stojč (Geateh),
Matej Stegel (Purgator),
Stane Pajk (MKO ARSO); Ministry of Agriculture and the Environment,
Ivan Stanič (MOL), Municipality of Ljubljana

- Mention what reports have been delivered since the start of the project.

Inception Report (LIFE10 NAT/SI/142), Covering the project activities from 01/01/2012 to 30/09/2012

Protocols and guides for survey of the ecological status, hydrological and hydraulic conditions of the Ljubljanica river corridor (version 1), 30/06/2012

- Indicate if any extension of the project duration is needed or envisioned (also to be included in the executive summary). Please note that a separate request for prolongation or modification with an extensive justification is required.

4 Technical part

- (You can add more descriptive titles that refer to the technical content of the project)
Describe clearly for each of the actions (and sub-actions as appropriate) defined in the proposal and list below the activities conducted and resulting outputs during the reporting period.
5.1. Actions (please follow the structure of your proposal).
NB: Please clearly indicate the title of the action.
 - 5.1.1. Action 1
 - 5.1.2. Action 2
 - 5.1.3. Action 3 etc.
- Describe what has been done regarding each action (and sub-action if applicable). Avoid describing the objectives and targets as such. The description should include the status of the activities (started, completed, in progress).
- Indicate what problems you have had, how you have solved them or plan to solve them, what delays (if any) you have and how this will (or will not) impact on the other actions of the project whose implementation depend on this action, and how you plan to catch up.
- Compare the progress made with the established time schedule. Indicate a timetable showing how you plan to continue this action during the next reporting period. Please provide a clear and comprehensive milestone table.
- For each of the objectives of the action, indicate whether you estimate you will achieve them. Where these objectives are quantitative, indicate the target, what you have achieved so far and what you think you will achieve by the end of the project.
- Attach completed deliverables as annexes (with a clear reference in the text of the report).
- Please present the progress of the project using a Gantt-chart or similar.

The main objective of the project is reestablishment and improvement of the ecological functioning of the heavily degraded Ljubljana River corridor upstream and downstream of the Ljubljana urban area towards the confluence with the Sava River and further upstream along the Sava River as an important habitat for the fragmented and heavily endangered population of Danube Salmon (*Hucho hucho* - EU code 1105), Danube Roach (*Rutilus rutilus* - EU code 1114) and Striped Chub (*Leuciscus souffia* - EU code 1131).

4.1 Actions

4.1.1 Action A1 Preliminary studies

Preliminary study of the habitat, hydrological and hydraulic conditions in the Ljubljana river corridor, estimation of Danube Salmon, Danube Roach and Striped Chub population.

Description (what, how, where and when):

Because the Ljubljana River has a long history of man interventions, past river channel regulations will be investigated. >completed

Overview and description of fish population and its habitat as also situation on river morphology due to human impacts from available data basis will be prepared. >completed

Habitat conditions in the Ljubljana River channel will be investigated by field work with electro-fishing fish sampling, fish marking and analysis of the fish population size. >in progress E2

There occurred a mistake when writing the plan for the project. This sentence should be worded as follows: Habitat conditions in the Ljubljana River channel will be investigated. The actions which are written in rest of the sentence are already meant to be held under action E2, so we think it would be adequately to leave this part for action E2 as it was planned. What have to do with the investigation of habitat conditions, at the moment there are no other informations about habitat conditions in Ljubljana River channel than those we already mentioned in the inception report. The reason for that situation is because no survey of the ecological status according to the EU Water Framework Directive was performed.

Secondly, a database on the Ljubljana River hydrological regime including ground water – surface water relations will be established. >completed

Overview of the Danube Salmon, Danube Roach and Striped Chub population in fragmented areas will be prepared. >completed

Data will be collected from all available published and unpublished reports as also from available literature considering fish fauna in this region, ichthyologic researches, different kind of reports and observations on the field. In this way, analysis of the past and present changes in the ecological, hydrological and hydraulic trends will be possible. >completed

Reasons why this action is necessary:

The data obtained through this preparatory action will serve for the identification of critical ecohydrological issues and threats that will have to be considered while planning concrete conservation actions (actions A2, C1, C2, C3).

Furthermore, knowledge about the habitat condition is crucial for existence and development of Danube Salmon, Danube Roach and Striped Chub population.

By implementing this action, stream carrying capacity will be estimated and possibilities for Danube Salmon, Danube Roach and Striped Chub rehabilitation will be assessed in detail.

*Beneficiary responsible for implementation:
University of Ljubljana*

*Expected results (quantitative information when possible):
Based on the results of the preliminary studies, basis for detailed planning of restoration measures for the improvement of the ecological coherency and connectivity between separated Natura 2000 sites will be assured.*

Fish population and habitat conditions will be estimated as well as proposals for minimisation and/or elimination of negative impacts will be prepared. >in progress

Because, due to overwhelming odds, no expected field work with fish sampling was performed, fish population and habitat conditions cannot be estimated. Likewise is true for preparation of proposals for minimisation and/or elimination of negative impacts.

Knowledge about the present situation of Danube Salmon, Danube Roach and Striped Chub population in the Ljubljana River corridor and main tributaries will be obtained, priority list of the streams suitable for spawning places and nursery places will be prepared. (the streams suitable for spawning places) >completed

We are lacking informations about the present situation of Danube Salmon, Danube Roach and Striped Chub population in the Ljubljana River corridor and main tributaries, because there were no surveys carried out in the present. In such a manner we searched and used every data available in the last years. The inception report you reviewed already contains information about distribution of all three species along Ljubljana River from Podpeč to the outflow. What we acquired additionally are informations about the range (with spawning places), number of caught and number of re-introduced specimens of Danube Salmon in Ljubljana River in the past and an expert opinion.

Document: A1_FishPopulation.doc

Regarding timetable this action A1 must be finished on 31.12.2012. Since Action E.2 is due in February 2013, we would like to propose a Technical change in regard to postponement of the Action A.1 realisation of field work with electro-fishing fish sampling, fish marking and analysis of the fish population size. for half year until end June 2013.

Request for Technical Change

Realisation of this action has been jeopardised by several reasons, among which it is extremely difficult to point at most critical one. According to Technical description, Action A.1 was proposed to investigate habitat conditions by the means of electrofishing, fish sampling with marking and analysis for fish population size. However, during work on this action it has been discovered that in local conditions it is not an action that could be realised simply from point A to whatever other defined point, but certain changes are necessary in order to realize the task.

(1)

Action A.1 has direct working interconnections with the action E.2 Post monitoring, which requires purchase of equipment, consisting mainly of boat and electro-fishing appliances. What has been foreseen in A.1 as field work and habitat investigation could be therefore only realised by the use of equipment planned within the Action E.2. Under such terms it was deemed responsible to reconsider Technical description and revise plan of work accordingly.

As the result of analysis, it was found that the type of research boat which was proposed could hardly suit the purpose of investigation on Slovenian rivers. Since an aluminium boat has been foreseen initially, the matter of further use as well as the use on the present LIFE Assignment of such boat has been discussed in detail with Fisheries Research Institute of Slovenia. As the matter of fact we were advised not follow plan of purchase, because boats are on disposal with either Fisheries Research Institute of Slovenia or Fisheries Associations Vevče and Barje.

As the consequence, investing in the boat of such characteristics would stay without other normally expected benefits, such as long term usage in fisheries research. Instead, we

commonly agreed to obtain electro-fishing equipment consisting of one generation unit by the installed capacity of 7,5 kW suitable for application from the boat, and one portable generation unit of installed capacity 1,3 kW. With such equipment on the board it is foreseeable to investigate river banks from the water side by boat, including hidden places predominately accessible from the land. Boat will be borrowed from Fisheries Association; accordingly in the meantime the consent has been obtained.

Since Action E.2 is due in February 2013, we would like to propose a Technical change in regard to postponement of the Action A.1 realisation for half year until end June 2013. All connected actions remain timely as they are. Proposals for Technical change are well within budget available, actually considerable savings are achieved with small change of time plan.

(2)

Permanent employee dealing with biology signed a contract on October 2012, and has been on duty from October 15. In regard to employment issues, we would like to report on difficulties emerged during securing proper personnel. In such a small working environment as Slovenia (total population: 2 millions) there are not many fisheries expert available. Practically they would be all employed by Fisheries Research Institute of Slovenia. Unfortunately, no expert was found willing to change from Civil Servant contract to private employment position. Therefore opportunity went to freshman with university degree in the field of biology with experiences and dealings in ichthyology from curriculum. However quite some time was lost in the meantime, which should be compensated by postponing of the Action A.1 for half a year until end of June 2013.

(3)

Existing data on fish population in Ljubljana River are scarce. Specific information on Danube Salmon, Danube Roach and Striped Chub are ever harder to collect. Beside other gaps, question is, how big is the population of Danube Salmon introduced in the river by Fisheries Association from hatcheries. Genetically this population should be diversified from natural or autochthonous population.

At present establishment of Ecological status required by Water Framework Directive in Slovenia, by the method of work does not include fish populations. Therefore population data for Ljubljana are diverse and not reliable. In such cases status of fish population could be established by so called Expert opinion, based on common knowledge and historical data.

Again, such data are not at disposal in case of Ljubljanica River for no-of the species under consideration: Danube Salmon, Danube Roach and Striped Chub, because such data, obtained by proper method, are practically non- existent.

In such circumstances we considered Action A.1 even more important, therefore we propose half a year shift of initial investigation until the end of June 2013.

4.1.2 Action A2 Preparatory actions

Preparatory actions for implementation of concrete conservation (restoration) actions.

Description (what, how, where and when):

A set of preparatory actions will be done for planning and later, construction of concrete restoration actions (C1, C2, C3.). These actions will include:

- Procedures for obtaining all the necessary permits (e.g. from The Institute of the Republic of Slovenia for Nature Conservation). >in progress*
- Obtaining detailed geodesy of the project area. >completed*
- Preparation of initial hydraulic model of the project area (based on the data obtained during action A1 implementation). >in progress*
- Designing of channel habitat structures (based on the results of the initial hydraulic model).*
- Preparation of technical documentation. This documentation will be used for concrete action implementation (actions C1, C2, C3). >in progress*
- Preparation of documentation for public tender contract containing different slots for each concrete action. >in progress*
- Supervision of the concrete action preparation.*

A set of next preparatory actions will be done for actions C2 and C3: . >in progress

- Detailed assessment of the present state of the fish pass at Ambrožev trg barrier and Fužine wier.*
- Elaboration of the reconstructed fish pass operation monitoring.*

Reasons why this action is necessary:

Besides legal status, foreseen concrete restoration activities require a very meticulous and thorough planning and design before they can be implemented to ensure their efficiency and relevance of results.

Beneficiary responsible for implementation:

University of Ljubljana

Expected results (quantitative information when possible):

*Well designed and organised preparation activities as a basis for successful implementation of restoration activities. Properly constructed fish passes so they could be used for as much as possible by different fish from the list of habitat directive as well as from the list of native fish species which live in the Ljubljanica River. Some fish species especially the Nase (*Chondrosotoma nasus*) are extremely important for Danube Salmon, Danube Roach and Striped Chub survival.*

The associate partner “Purgator”, responsible for implementation of part of the planned activities under Action A2, those linked to obtaining the permits, during the reporting period, conducted key activities to prepare necessary documentation needed to obtain the permit for planned works under Action C1 – Sill in Zalog.

In the beginning of October 2012 a project partner meeting was held, as requested by the Associate Partner “Purgator”, where details related to project implementation have been discussed among partners, as number of questions related to project management, project finances, to ongoing activities had to be resolved to improve project implementation. At the meeting the responsibilities of each partner and time plan of Actions have been discussed. Separate part was focused at contractual and budgetary issues. Project partners have agreed about the division of tasks, the time plan and financial relations.

The work during the months of October and November 2012 has mainly been focused at technical, administrative and ownership challenges linked to Action C1, especially at communicating the project, it’s goals, the activities and expected results to relevant stakeholders, potential partners and relevant organizations. Such approach was initiated in order to facilitate smooth processes when relevant permits will be required as the C1, C2 and C3 actions will come into implementation.

Project Steering Committee meeting, held on November 13 2012, has helped in clarifying some of the challenges, and has identified some of the new ones, that needed to be resolved before, during and after implementation of C1 Action.

The C2 and C3 Actions have also been discussed and some important issues have been presented (ownership, maintenance after project completion, complementary activities...). During December 2012 key focus of the activities has been spent on developing relevant documentation, for obtaining permit for C1 Action. This permit is issued by Environmental Agency of the Republic of Slovenia (EARS). This included gaining guidelines for the planned works from Institute of the Republic of Slovenia for Nature Conservation, Fisheries Research Institute of Slovenia, and having discussions with local fisheries associations. At those meetings, the whole concept of Action C1 was planned in detail, including the periods, suitable for such ground and water works and periods when works in the river and riverbed are not possible, due to the fish breeding season.

All relevant materials have been collected by end of December 2012 and the request for permit was presented to the EARS in beginning of January (thus not falling under this reporting period).

4.1.3 Action A3 Ecohydrological survey

Description (what, how, where and when):

The ecohydrological survey system will be established for obtaining continuous data about water level in the Ljubljana River channel and periodic field survey of biological and chemical parameters. . >in progress

The ecohydrological survey system will include:

1) Construction of 17 water stations, 3 of these water stations with online connection. Such number of water stations is necessary in order to be able to continuously and precisely monitor water levels along the Ljubljana River and its tributaries, where Danube Salmon used to migrate. The tributaries of the Ljubljana River upstream of the Ambrožev trg were in the past important spawning areas of the Danube Salmon, Danube Roach and Striped Chub. Ljubljana River is a lowland river and every change in its water level can have great impact on the ecological conditions inside the stream channel and surrounding landscape, especially in the area of Ljubljansko Barje. Namely, the water level of Ljubljana River through SI3000271 Natura 2000 site Ljubljansko Barje is under control of the Ambrožev trg barrier which improvement is considered in action C3. Due to improper Ljubljana River water level manipulations and consequently too low water levels in the Ljubljana River, the spawning areas in the tributaries are no longer accessible to the adult Danube Salmon, Danube Roach and Striped Chub. Therefore, the water levels in the Ljubljana River have to be monitored precisely in order to develop appropriate operation procedures for the Ambrožev Trg barrier. The number of the water stations coincides with the number of the Ljubljana river tributaries and Ljubljana river sections where water levels need to be monitored in order to obtain an overview of the water level changes under different flow conditions. Special attention will be given to sections where water level control object are positioned (e.g. Ambrožev trg, Vevče weir, Fužine weir, sill in Zalog).

The position of the water stations are (see the map provided in Annex 1): (1) Downstream of the sill in Zalog, (2) Upstream of the sill in Zalog, (3) Downstream of the Vevče weir, (4) Upstream of the Vevče weir, (5) Downstream of the Fužine weir, (6) Upstream of the Fužine weir, (7) Downstream of the Ambrožev trg barrier, (8) Upstream of the Ambrožev trg barrier, (9) Grubar channel, (10) Mali graben tributary, (11) Curnovec tributary, (12) Iščica tributary, (13) Iška tributary, (14) Ljubljana River near Notranje gorice, (15) Borovniščica tributary, (16) Ljubija tributary, (17) Močilnik spring.

8 of 17 water stations are installed, the rest of them are planned to be installed in February due to the lower water regime.



Some examples of sensors installations

2) Based on the results of precise water level monitoring, hydrologic and a 1-D/2-D hydraulic model will be established. The model will be initially developed to simulate the present state of the Ljubljana River. Throughout the project advancement, the model will be adapted and calibrated according to the results obtained through the ecohydrological survey management under action E3 and used for the development of the Ambrožev trg barrier operation plan.

. >started

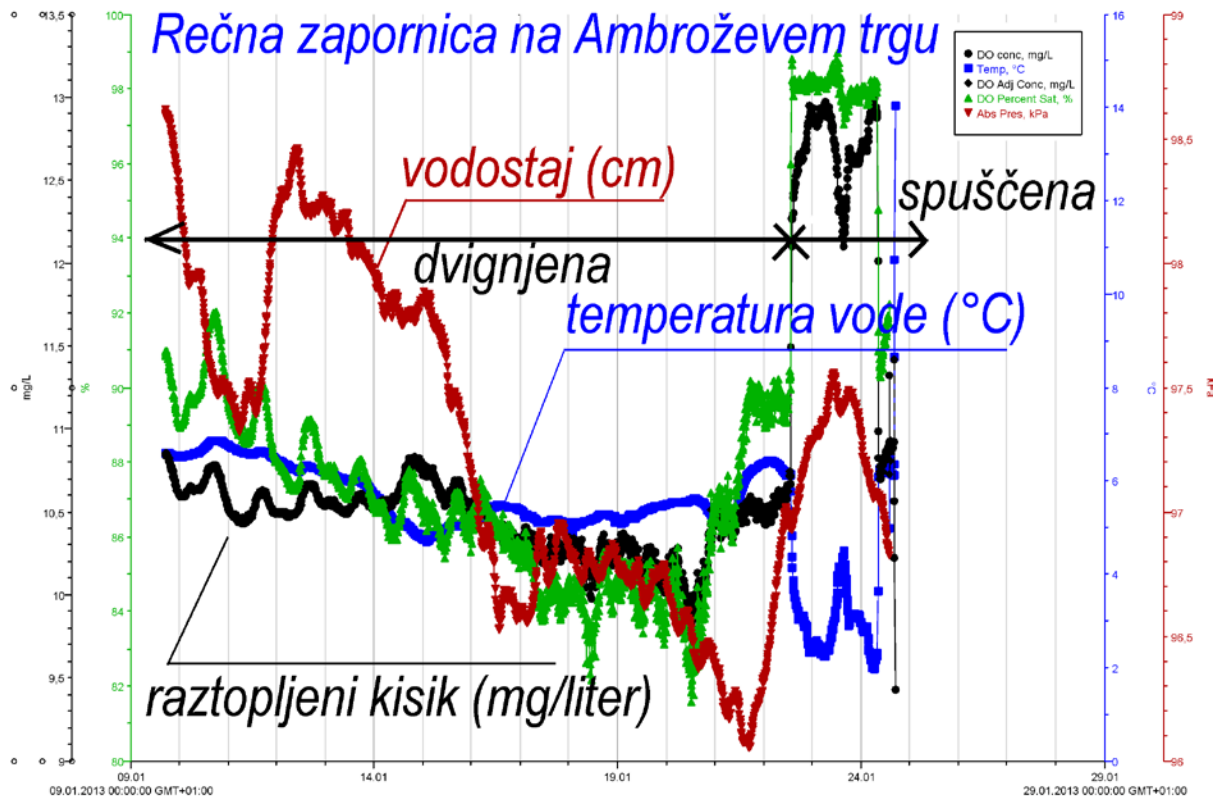
Hydrologic HBV model of Ljubljana River Basin.pdf (in Annexes)

LINK:

[http://ksh.fgg.uni-](http://ksh.fgg.uni-lj.si/ljubljanaconnects/Data/Hydrologic%20HBV%20model%20of%20Ljubljana%20River%20Basin.pdf)

[lj.si/ljubljanaconnects/Data/Hydrologic%20HBV%20model%20of%20Ljubljana%20River%20Basin.pdf](http://ksh.fgg.uni-lj.si/ljubljanaconnects/Data/Hydrologic%20HBV%20model%20of%20Ljubljana%20River%20Basin.pdf)

3) The monitoring of **water temperature and quality** will provide basis for adapting the continuous manipulation and regulation of the water level in the river channel by improved Ambrožev trg barrier in order to optimize the habitat conditions in the Ljubljanica River for the Danube Salmon, Danube Roach and Striped Chub even during critical conditions in periods of low summer Ljubljanica River flows. . >in progress



Some result: Diagram of DO, temperature and water level on both sides of Ambroz weir

Reasons why this action is necessary (specify the species / habitat(s) / biodiversity issue(s) targeted):

The activities foreseen in the scope of the ecohydrological survey are necessary for preparing the planning of the concrete actions because presently, the availability of hydrological, hydraulic and water quality data is extremely poor and is far from being suitable for planning of any works in the Ljubljanica River channel. Regarding the establishment of hydraulic model, such model of the Ljubljanica River channel has not been built before and is necessary for successful implementation of the concrete actions inside the Ljubljanica River channel. A combined hydrologic and hydraulic 1-D and 2-D model will serve for continuous manipulation and regulation of the water level in the river channel by barrier in order to optimize the habitat conditions in the Ljubljanica River tributaries. Properly regulated river level is important for the Danube Salmon, Danube Roach and Striped Chub during its migration to the spawning places and after this back to the feeding areas. It is important also for passive migration of fry and fingerlings after hatching period. The water velocity and proper water level are crucial conditions during passive migration of the Danube Salmon, Danube Roach and Striped Chub offspring from the Ljubljanica River to the Sava River.

*Beneficiary responsible for implementation:
University of Ljubljana*

*Expected results (quantitative information when possible):
New data on the low flow regime of the Ljubljanica River will be obtained, detailed technical tuning of the restoration actions will be prepared.*



Figure : Ultrasonic Doppler flow measurement, periodic field measurement during high water, 28.10.2012

4.1.4 Action C1 Sill in Zalog

The sill in Zalog which controls the water level in the Ljubljana River is heavily damaged and needs to be reconstructed. We will make the sill more watertight. The construction works will include installation of quarry stone (size range 50-100 cm); part of the sill will be reconstructed as a chute which will enable migration of juvenile and adult Danube Salmon, Danube Roach and Striped Chub and other fish. Under the sill a pool will be excavated which could serve as a breeding and spawning place.

The reconstruction of the sill will hold the water level in dry season in the Ljubljana River upstream and also in old river meander Krnica. The sill reconstruction would increase the water abundance in the river channel during low flow conditions.

We performed site visits during different flow conditions. The observations were affected by the amount of water in the state of the abandoned riverbed.



Figure: Sill in Zalog, viewed upstream

During the Inception period, the associate partner, Purgator inženiring d.o.o., has initiated a series of activities needed for establishment of a competent project team, to develop good working relations with the coordinating beneficiary and with the second associate partner, to

understand in full the obligations under the contract and to commence initial inspections of both project sites. The company established the internal bookkeeping required for the fulfillment of obligations under LIFE+ rules and regulations, and has opened a separate bank account where the project funds will be located. In September 2012, the company has employed an experienced technical coordinator, who will be responsible for daily project activities. He has been tasked with the preparation of all relevant documents needed for smoother implementation of the next steps of the project, as planned in the project timetable, to complete actions C1 and C2 effectively and efficiently. In order to cope with all the requirements of the assignment it has been decided that the director of the associate partner will be engaged on the project full time, taking the responsibility of the key technical, procurement, and managerial activities. The full time engagement will start in autumn 2012.

During this reporting period (Oct – Dec 2012), associate partner, responsible for implementation of C1 Action has focused all project resources to prepare coherent reconstruction plan, respecting the standards of the profession, expressed interests of relevant stakeholders, recommendations from relevant institutions and other contributions, received at numerous meetings with the parties. After preparing the reconstruction design of the C1 Action it has been discussed among project partners.

Relevant permit was requested from the authorities (EARS) in January 2013. Actual implementation of C1 is intended to commence in February 2013, to be completed before fish breeding season. The severe winter conditions may delay actual implementation for a few weeks.

Related to the engagement of contractor for implementation of actual works, the calculation of actual costs has been commenced for the Action C1, following the preparation of C1 reconstruction plan. Actual costs are to be calculated and presented to project partners by end of January 2013.

“Purgator” has collected initial information from potential contractors, presenting them the project and the scope of work planned to be completed. On the same time discussions within project team have been focused at the issue of concessionaire, authorized by the State implement works needed for river and bank management. In case it becomes clear no alternative contractor can be engaged to implement reconstruction works, the procedure of

direct negotiations will commence with this company, following LIFE and national public procurement regulations, aiming at assuring lowest possible costs for the project. This issue will be clarified and agreed upon by end of January 2013, and will be presented in next progress report. By end of January the selection will be completed in order for the selected party to start and complete the C1 works within the planned time frame.

No significant delays are envisaged in implementation of the C1 Action, and it is expected all activities will be completed as planned in the project timetable.

4.1.5 Action C2 *Fužine and Ambrožev trg fish pass*

We made several site visits and performed monitoring of various hydrological conditions. We also interviewed the managers of facilities and made preparations for installation of monitoring networks. Actions C1 and C2 are directly linked to the works that need to be completed for reconstruction of two installations in the Ljubljana River. Action C1 is linked to the reconstruction of the sill and action C2 aims at completion of relevant works for reconstruction of fish passes. Action C1 is scheduled for the last quarter of 2012, and is due to be completed in the second quarter of 2013. Action C2 is intended to commence in the last quarter of 2013. The dynamics of the implementation is in line with the project timetable and no significant obstacles are envisaged.

Majority of activities linked to implementation of C2 Action will be implemented during the next reporting period, as activities will take place in 2013.

During this reporting period, no significant focus has been paid to the C2 Action, save regular meetings with stakeholders, where the challenges have been discussed. The concentration on the activities C2 will increase during the next reporting period.



Figure: Fužine fish pass, 18.5.2012



Figure: Degraded old fish pass



Figure: Fužine weir

4.1.6 Action C3 *Ambrožev trg barrier*

After World War II works on the gate (weir) at the Ambrož Square came to an end and no further alterations followed. The gate fulfill concrete stream channel with water and instead shallow water flow with visible concrete bottom, navigable water course and water body deep more than few meters was established.

The gate on the Ambrož Square is also important with regard to management of surface waters and groundwater regime upstream of Ljubljana moor. The Ljubljana moor, a large flat area with an artesian aquifer covered by 20 meters of unconsolidated clay, is highly vulnerable to changes in water regime. Lowering the in stream water level of the Ljubljanica river could cause bank slides and instability of the riverbank in the Ljubljana moor area. Lower in stream water level and indirectly a lower artesian groundwater pressure that caused consolidation of the clay layer, subsidence of land surface of the large flood area.



Figure: Weir at Ambrož Square, view from upstream



Figure : Weir at Ambrož Square, view from downstream

We have reviewed and prepared structure plans of the existing situation. With our partners we examined the situation in the field.

4.1.7 Action D1 Public awareness

An internet page of the project has been developed and regularly maintained.

<http://ksh.fgg.uni-lj.si/LjubljanaConnects/>

The hosting server is at UL FGG. All important activities are reported via this page. Recently in January new pages with results section (Promotion and informing, Documents and results) are added. All links with Deliverable are in this section. All links to Natura2000 and LIFE are added respectively.

We started to establish contacts among the Municipality of Ljubljana, the Fishing Association and the management of the Ljubljansko barje Nature Park.

Deliverable - D1, Yearly bulletin of the project LIFE10NAT/SI/142: Obnovitev koridorja Ljubljaniče in izboljšanje rečnega vodnega režima, Letnik 1, Številka 1, ISSN: 2335-2773 (bulletin in Slovene only) is currently in the press.

4.1.8 Action E1 Coordination and administration

Our work under this action included the organization of project management and performance bases for keeping records of the work performed. We prepared timesheets for this purpose. We defined the bases for issuing the decisions related to the personnel working on the project. For the personnel employed on the project part-time, the procedure for reporting is governed by monthly loads. We made negotiations with partners on the project. We were in conversations with the Municipality of Ljubljana (MOL) regarding the cooperation in the implementation of the project and we met with deputy mayor Mr. Koželj. We made a presentation of the project and signed a co-

operation agreement. A representative of MOL was appointed for monitoring of the project. We held conversations at the Ministry of Agriculture and the Environment (MKO) related to cooperation in the project. We drew up the contract on the dynamics of co-financing the project with the MKO. The commission for the implementation of the contracts under the LIFE project was also appointed. Furthermore, we prepared the documentation for the implementation of the contract. We elaborated the technical specifications call for equipment manufacturers. We have continuously made preparations for project-specific actions.

4.1.9 Action E2 Monitoring and evaluation

Action will start in year 2013 according to time schedule of project 2nd Quarter Of the Year 2013. We set up till now 8 monitoring sites to measure water levels on the Ljubljanica river. We purchase equipment for water level measurement and for fish monitoring. We performed occasional patrols and monitoring of fish passes.

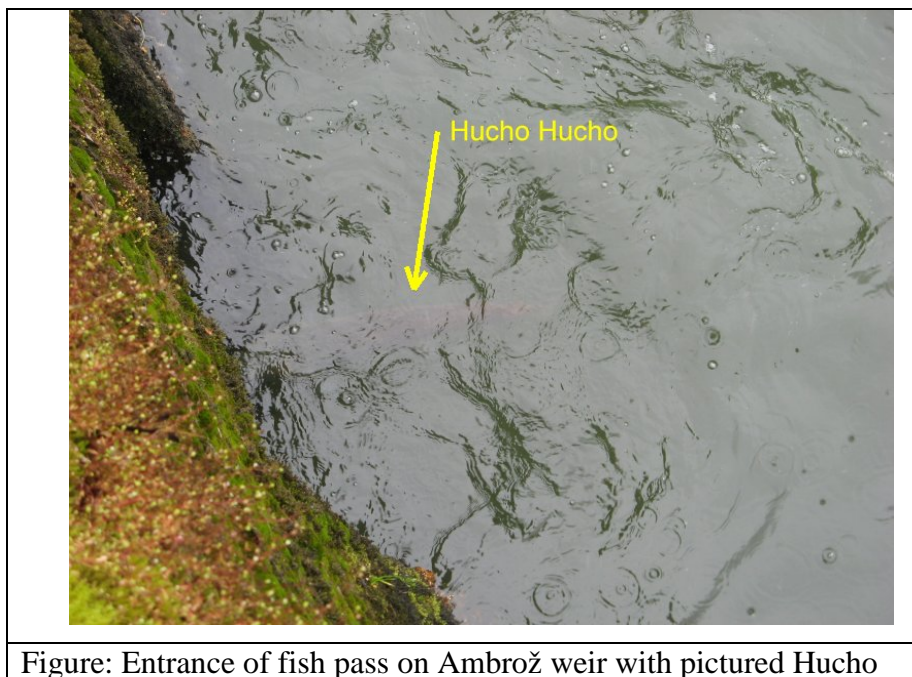




Figure: Fish pass on Ambrož weir is dry and no operating when weir is opened, 8.11.2012

4.1.10 Action E3 Management of ecohydrological survey

Action E3 will start in year 2013. The development of the structure for the hydrological and hydraulics model has started.

4.1.11 Action E4 Networking with other LIFE and/or non-LIFE projects.

II INTERNATIONAL HUCHO SYMPOSIUM was held in Łopuszna from 19th-22nd September 2012. The symposium collect researchers form over the world.

(http://www.hucho-hucho.org/files/16/lap_abstracts_programme.doc).

The objectives that we expect with first workshop are almost achieved. The symposium drop interest for our workshop in year 2012 and we postponed workshop for the year 2013. The contact with experts from Austria is established and others experts in neighbourhood also.

We founded the organizing committee (Mr. Andrej Vidmar, Mr. Mitja Brilly, Miss. Maja Koprivšek, Mrs. Povž and Mr. Meta. Miha Ivanc).

We planned to organise one day workshop on April 13th. 2013. Programme: Morning lectures with discussion and an afternoon tour on the site visit.

We prepared list of invitees of fish experts

Title	Last name	First name	Company	Address	Country
Prof. Dr.	Mrakovčić	Milorad	Prirodoslovno matematički fakultet, Biološki odsjek	Rooseveltove trg 6, 10000 Zagreb	Croatia
Prof. Dr. Sc.	Treer	Tomislav	Zavod za ribarstvo, pčelarstvo, lovstvo i specijalnu zoologiju		Croatia
Dr.	Adrović	Avdul	University of Tuzla, Biologija	Univerzitetska 4, 75000 Tuzla	Bosnia and Herzegovina
Prof. Dr.	Škrijelj	Rifat	Prirodno-matematički fakultet Univerziteta u Sarajevu	Zmaja od Bosne 33-35	Bosnia and Herzegovina
Prof. Dr.	Simonović	Predrag	University of Belgrade, Faculty of Biology	Studentski trg 16, 11000 Belgrade	Serbia
Dr.	Lenhardt	Mirjana	Institute for Biological Research	Despota Stefana 142, 11000 Belgrade	Serbia
Dr.	Zauner	Gerald	Universität f. Bodenkultur Wien, Studium der Landwirtschaft		Austria
Dr.	Ratschan	Clemens			Austria
Dr.	Kosco	Jan	University of Prešov, Faculty of Humanity and Natural Sciences, Department of Ecology	Ul. 17. novembra 1, Prešov, 080 16, SK-08232	Slovakia
Dr.	Kovac	Vladimir	Comenius University, Faculty of Natural Sciences, Department of Ecology	Mlynská dolina B2, SK 842 15, Bratislava	Slovakia

5.2. Envisaged progress until next report.

- What will be done during next 9 months, i.e. up to the next progress report? Describe the development of different tasks or entities and envision of the milestones to be achieved; mid-term report, all field work finished, infrastructure construction finished etc.
- Planned actions should also be indicated in the Gantt chart used to illustrate progress:

4.2 Envisaged progress until next report.

We estimate that we will achieve the objectives in all actions.

Tasks/ Activities		2012				2013				2014				2015				
		1 T	2 T	3 T	4 T	1 T	2 T	3 T	4 T	1 T	2 T	3 T	4 T	1 T	2 T	3 T	4 T	
Overall project schedule	Proposed	1.1.2012				X=Progress reports				31.12.201				O				
	Actual			X	X					X					X			
Action A1	Proposed	●	●	●	●													
	Actual	■	■	■	■	■												
Action A2	Proposed	●	●	●	●	●	●	●										
	Actual	■	■	■	■	■												
Action A3	Proposed	●	●	●	●	●												
	Actual	■	■	■	■	■												
Action C1	Proposed				●	●	●											
	Actual				■	■												
Action C2	Proposed							●	●	●								
	Actual																	
Action C3	Proposed										●	●	●					
	Actual																	
Action D1	Proposed		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
	Actual		■	■	■	■												
Action E1	Proposed	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
	Actual	■	■	■	■	■												
Action E2	Proposed					●	●	●	●	●	●	●	●	●	●	●	●	
	Actual																	
Action E3	Proposed				●	●	●	●	●	●	●	●	●	●	●	●	●	
	Actual				■													
Action E4	Proposed			●										●	●			
	Actual				■													
Action E5	Proposed													●	●	●		
	Actual																	
Action E6	Proposed				●						●						●	
	Actual				■													

5.3. Impact:

- **Nature & Biodiversity:** Indicate as appropriate for each site of the project and overall, the impact of your project so far on the species/habitats targeted, and on the other/species/habitats present on the site(s).
- **Environmental Policy & Governance:** Indicate as appropriate the impact of your project so far on the environmental issues tackled. Indicate your estimations as to what the impact of your project could be if other stakeholders applied your approach/technology.
- **Information and Communication:** Indicate as appropriate the impact of your project so far on the main target audience and the environmental problem targeted. Please indicate whether this impact is in line with the expectations as indicated in the proposal.

Note: It is clear that at the early stages of the project this section will not be well developed, but it is useful to see it progress.

- **Indirect impacts:** Indicate any indirect impacts of the project (e.g. local authorities near the project may have been inspired by the project to invest time/money or adopt the project's approach to the conservation/environmental issue in question)

4.3 *Impact*

XXXXXXXXXX

5.4. Outside LIFE:

- Summarise the different actions taking place outside the framework LIFE project (i.e. not financed by LIFE) but that are complementary to the project and add to its impact (if applicable).

4.4 Outside LIFE

XXXXXXXXXX

5 Financial part

5.1 Costs incurred

➤ Fill in the following table concerning the incurred project costs:

Budget breakdown categories	Total cost in €	Costs incurred from the start date to 31.12.2012 in €	% of total costs
1. Personnel	563.621,00	169.912,19	30,15
2. Travel and subsistence	20.460,00	681,20	3,33
3. External assistance	176.386,00	528,00	0,30
4. Durable goods			
Infrastructure	0,00	0,00	0,00
Equipment	312.287,00	14.733,31	4,72
Prototype	0,00	0,00	0,00
5. Land purchase / long-term lease	0,00	0,00	0,00
6. Consumables	31.600,00	274,56	0,87
7. Other Costs	7.200,00	133,08	1,85
8. Overheads	76.461,00	13.038,36	17,05
TOTAL	1.188.015,00	199.300,70	16,78

Action number and name	Foreseen costs	Spent so far	Remaining	Projected final cost
A1 - Preliminary studies	39.931,00	35.818,25	4.112,75	39.931,00
A2 - Preparatory actions	30.321,00	27.026,66	3.294,34	30.321,00
A3 - Ecohydrological survey	77.238,00	46.733,22	30.504,78	77.238,00
C1 - Sill in Zalog	91.531,00	0,00	91.531,00	91.531,00
C2 - Fužine and Ambr. trg fish pass	188.750,00	0,00	188.750,00	188.750,00
C3 - Ambr. trg barrier	210.017,00	0,00	210.017,00	210.017,00
D1 - Public awareness	44.465,00	0,00	44.465,00	44.465,00
E1 - Coordination and administration	197.760,00	52.060,32	145.699,68	197.760,00
E2 - Monitoring and evaluation	134.528,00	12.162,93	122.365,07	134.528,00
E3 - Management of ecohydrological survey	70.180,00	8.921,97	61.258,03	70.180,00
E4 - Networking	6.789,00	3.538,98	3.250,02	6.789,00
E5 - After LIFE conservation plan	12.045,00	0,00	12.045,00	12.045,00
E6 - Financial audit	8.000,00	0,00	8.000,00	8.000,00
TOTAL	1.111.555,00	186.262,34	925.292,66	1.111.555,00

*) If the Commission has officially approved a budget modification indicate the breakdown of the revised budget

***) Calculate the percentages by budget lines: How many % of the budgeted personnel costs are incurred by xx.xx.xxxx

Comment on the budget posts, particularly discrepancies (for example why 80% of one post is spent although the overall level is 30% of the budget spent) and indicate if any budget modification is expected.

If before mid-term payment, indicate when the 30 % threshold value of total costs is expected to be reached.

Please fill in the following additional table (recommended). When compiling the information please refer to Form B of the proposal:

Table regarding Form B

6 Annexes

7. Annexes

7.1. Deliverables

7.2. Dissemination materials

- Activities which have given publicity to the project; like seminars, newspaper (local, popular, national) articles, scientific articles, presentations, radio and TV broadcasts. Remember that an overall objective of the LIFE programme is demonstration, i.e. informing about the project and its results so that others can benefit from the experience gained with EU support. Consider that all dissemination material (Website, brochures, reports, slides, leaflets, etc.) must include an acknowledgement of LIFE financing and the LIFE logo.

6.1 Deliverables

- Deliverable - A1, Protocols and guides for survey of the ecological status, hydrological and hydraulic conditions of the Ljubljana river corridor, 30/06/2013 (revised version 2)

http://ksh.fgg.uni-lj.si/LjubljanaConnects/Data/Annex_7.2_Protocols&Guide_v2.pdf

Many other documents are On-line on project WEB site.

6.2 Desemination materials

- Deliverable - D1, Yearly bulletin of the project LIFE10NAT/SI/142: Obnovitev koridorja Ljubljanice in izboljšanje rečnega vodnega režima, Letnik 1, Številka 1, ISSN: 2335-2773 (bulletin in Slovene only)

http://ksh.fgg.uni-lj.si/LjubljanaConnects/Data/Bulletin_1.pdf

- revised and actualised Website

<http://ksh.fgg.uni-lj.si/LjubljanaConnects/>

Izvajanje projekta – in Slovene



The screenshot shows the website 'Ljubljana povezuje' with a navigation menu on the left and a main content area. The navigation menu includes: Domov, Novice, O projektu, Izvajanje projekta, NATURA 2000, O Ljubljani, Ali veste?, Foto, Povezave, and Kontakt. The main content area features a header with logos for LIFE, NATURA 2000, and 'Ljubljana povezuje'. Below the header, there are sections for 'Promocija in informiranje', 'Dokumenti in rezultati', and 'Delavnice'. The 'Promocija in informiranje' section includes a result for D1: 'Rezultat - D1, Glasilo projekta LIFE10NAT/SI/142: Obnovitev koridorja Ljubljane in izboljšanje rečnega vodnega režima, Letnik 1, Številka 1, ISSN: 2335-2773'. The 'Dokumenti in rezultati' section lists various documents and reports, including 'Protokoli in navodila za raziskavo ekološkega stanja, hidrološka in hidravlična stanja v povezovalnem koridorju Ljubljane' and 'HBV model Ljubljane'. The 'Delavnice' section mentions a workshop on April 13, 2013, with a program including a lecture and a field visit.

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Promotion and informing

Deliverable - D1, [Yearly bulletin of the project LIFE10NAT/SI/142](#): Obnovitev koridorja Ljubljane in izboljšanje rečnega vodnega režima, Letnik 1, Številka 1, ISSN: 2335-2773 (bulletin in Slovene only)

Documents and results

Deliverable - A1, [Protocols and guides for survey of the ecological status, hydrological and hydraulic conditions of the Ljubljana river corridor, 30/06/2013](#)

>Protocols Annex: [Navodilo za pobiranje in odčitavanje hidrografskih podatkov iz ONSET U20 absolutnih tlačnih senzorjev](#) (in Slovene only)

>Database on Ljubljana River hydrological regime:
[HydroBaseRegime.zip](#)

>Hydrologic Model: HBV model for the Ljubljana river basin in Slovenia
[HBV model of Ljubljana](#)

>We acquired additionally informations about the range, number of caught and number of re-introduced specimens of Danube Salmon in Ljubljana River in the past and an expert opinion.
[FishPopulation PDF](#)

>Maps of places where are registered:
[Danube Salmon](#), [Danube Roach](#) and [Striped Chub](#)

>Spawning places for Danube Salmon, Danube Roach and Striped Chub:
[PDF table in Slovene plus map](#), [JPG map](#)

>Concept of reconstruction of the sill in Zalog:
[IDZ plan](#), [IDZ section](#) (sketch PDF)

>Detailed geodesy of the sill in Zalog:
[plan PDF](#), [plan2 PDF](#), [cross sections PDF](#)

Workshops

We planned to organise one day workshop on April 13th. 2013. Programme: Morning lectures with discussion and an afternoon tour on the site visit. We will invite some "fish pass" experts from neighbouring countries. Detailed programme will be announced soon.

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