Editorial

The European Commission will in 2018–2019 perform a Fitness Check of the Water Directives and will propose any necessary amendments to the Water Framework Directives (WFD) and related water Directives. The WFD requires this review, but it does not oblige the Commission to actually propose changes to the EU water laws. The commission decided to carry out this review in the form of the REFIT / fitness check.

In this newsletter there are already two articles paying attention to the review. The first is a report on the ‘Workshop on data management organisation and electronic reporting’, held at the EUROPE-INBO 2017 conference in Dublin. It is stating that it is impossible to achieve the good ecological status of most water bodies by 2027 in spite of the efforts made to reduce the pressures on the water resources and the ecological restoration activities.

The second article describes the foreseen ECRR participation, together with Wetlands International European Association, in the upcoming Fitness Check by enhancing the availability of information of successes and challenges to conserving and restoring Europe’s water bodies as means to achieve policy objectives. Moreover, this should reinforce the ECRR as a competent knowledge platform and catalyst for river restoration implementation through recognition on the EC level.

Both described approaches, will provide structured implementation evidence for making suggestions for improvement in order to ensure water policies are strengthened to achieve conservation or restoration of healthy river ecosystems. As a start, public and stakeholder consultation by the Commission, that will run around the summer, will give the opportunities for the ECRR an WIEA to participate through their members extensively in the REFIT process.

Furthermore you can read how the editors provisionally evaluated the ECRR newsletter to improve their efficiency and the effectivity of the restoration messages. The river restoration National Centres of Spain and Portugal inform us about their situation, concerns and activities in relation the specific environmental and societal circumstances. Whereas the situation in Spain is highlighted with an interesting additional River Barriers Report.

Finally two scientific educational events on river (restoration) management, held this summer, are announced, the I.S. Rivers 2018 Conference in Lyon and the (Phd) students Summer School in Warsaw. And this all is nicely completed with a call for scientific articles about environmental flows, and an extensive event calendar showing a great activity in river restoration information and knowledge transfer.

Well, enjoy the read and the Spring, we are looking forward meeting you.

Bart Fokkens, ECRR and Wetlands International, Francisco Martinez Capel, CIREF, Timur Pavlyuk, RosNIVH.
ECRR NEWSLETTER EVALUATION

The ECRR Newsletter, issued three times a year has an edition of about 2,500 per issue, with about 1,000 send to subscribers, 750 free downloads from the website and another 750 redistributed by a number of network organizations like GWP, Ramsar and national River Restoration Centres. The format for the content is more or less the same since 2009, however there have been a number of special issues, dedicated to one special theme, like the European River Restoration Conferences and the development of the ECRR and national River Restoration Centres.

Although there is foreseen that, in the second half of 2018, there will be the ECRR communications and communication channels evaluation, the editors felt the need to evaluate from their own experience and perspective the ECRR Newsletter. The overall conclusion was that for the time being no major adjustments are needed. The number of issues of 3 per year, issued in respectively end of April, beginning of July and end of November is suitable. Per issue, the number of articles should not exceed 10, with a maximum of 5 technical articles, considering the July issue to be thematic.

For the articles from and about the River Restoration Centres guidelines should be provided and will soon be available. While the technical articles and the reports will remain having a rather free format, more guidance could be given, avoiding too much editing work. Concerning the figures and pictures, less ‘romantic’ and thus more realistic river pictures are needed. Active humans, animals and even construction works are welcome and should have a higher printing quality.

The editors would like the ECRR Member organizations to be more involved in and committed to the acquisition of especially technical articles, as well as for the promotion of the newsletter to potential readers. For that reason, the editors invite the readers so send eventual reactions to this article, but preferably suggestions or even wishes for certain articles to the ECRR Secretariat by info@ecrr.org. The editors thank you very much for your interest and support.

The Iberian River Restoration Centre – CIREF

The Iberian Centre for River Restoration – CIREF – celebrated its foundational meeting in 2009, where people from different institutions, namely public administrations, universities, research centres and private companies, from Spain and Portugal, formed the first management board. CIREF is a membership organisation, officially founded as an NGO. Therefore, its essential funding comes from membership fees and the organization of specific events on river restoration; the members of the management board are volunteers, without any professional position in the association. As a member of the international NGO Wetlands International – European Association, CIREF and its other partners also receive funding from the LIFE-NGO programme of the European Commission.

By that time, there were great expectations concerning river restoration. The previous decade had seen some general improvement in the health of aquatic ecosystems, in accordance with the ameliorated management of the sewage treatment plants, an increasing control of the industrial pollution (following the IPCC Directive), the application of the Habitats Directive and the first steps in the implementation of the Water Framework Directive.
Furthermore, in 2009 the National Strategy of River Restoration was launched in Spain by the Ministry of Agriculture, Food and Environment (MAGRAMA), which led to the publication of a series of national guidelines (project design and implementation, river volunteers, legal framework, etc.), and the commissioning of basin-scale contracts to make pilot restoration projects in all the Spanish river basins. In addition, basin-scale studies on environmental flows were implemented in all the basins, under the contract and supervision of the Water Directorate of the MAGRAMA.

In the last decade, the majority of actions for river restoration have been concentrated in a few regions of Spain, sometimes co-funded by the European Commission through different funding instruments, and in others entirely funded by MAGRAMA, the river basin authorities and the regional governments. Since river connectivity is a major problem in the Iberian rivers, the projects related to fish passes installation, and weir removal, have prevailed over the projects on river morphology and habitat enhancement, which have been less numerous. There is a growing concern on the urban environment, and a few relevant projects have been implemented in the last years; for instance, the improvement of the Segura River in Murcia, a weir removal in Leon city and a morphological enhancement of the Manzanares river in Madrid. Different members of CIREF have participated in the design and implementation of studies and projects in Spain and Portugal, working from different institutions, but the role of CIREF is not the technical design, supervision of projects, or post-project evaluation, as explained herein below.

The main objectives of CIREF are:

• To promote participation, support and advice public and private activities and initiatives targeted to protecting, preserving and restoring aquatic systems.

• To establish and maintain relationships and adequate representation in public or private institutions that touch upon the scope of the Centre, collaborating with them in any way which may be beneficial for fluvial systems.

• To promote and design technical documents and educational resources to use at High School, Universities or other educational entities to disseminate knowledge about river ecology and restoration.

• To disseminate and defend the values and benefits of fluvial ecosystems, to fight against their degradation due to pollution, dredging, channelization, flow regulation, and occupation of riversides and floodplains.

• To promote international projects or other sustainable development cooperation activities, compatible with conservation and restoration of fluvial ecosystems.

• To promote information exchange among the experts that develop or participate in the conceptual development of river restoration projects, with the goal of improving their technical quality.

Since a central objective of CIREF is to promote collaboration and information exchange among researchers and practitioners, a relevant milestone for the association was the celebration of the First Iberian Congress on River Restoration - Restaurarios, which took place in León (NW Spain) in October 2011. There, more than 240 experts presented communications and many of them were published in the Congress’ Proceedings (free download). The following edition, held in Pamplona in 2015, was a great success in participation with over 350 attendees, including international delegates. The next Congress will take place in 2019 in the city of Murcia.
Spanish rivers are heavily regulated by over 1,200 large dams and many thousands of small dams and weirs (MAPAMA 2016). However, the availability of official information about those facilities is scarce and not homogeneous across the Spanish river basin districts. Concerning the development of connectivity measures of fragmented rivers (either fishway constructions or barrier removal), the effort has been also irregular across river basins. A third problem concerning connectivity is the low efficiency of some fishways; for instance, in the barriers inventory provided by the Duero River Basin District there was a total of 104 fish passages installed in, but 68 of them were not functionally operative. Due to these problems and the urgent need to have a comparative document which gathered all relevant data on the issue, CIREF and Wetlands International – European Association commissioned, under the funding of the LIFE program (European Commission), a technical report with the title of this article, whose results are summarised herein.

Although during the last decades there has been an increase in weir removal as a practice to recover the longitudinal connectivity of rivers, a critical milestone for river management in Spain was the implementation of the National Strategy for River Restoration (NSRR). This Strategy was based on a set of managerial guidelines and a program of measures developed by the Ministry of Agriculture and Fisheries, Food and Environment, whose main objective was to recover the integrity of the ecological functioning of rivers and to make all administrative uses and actions compatible with the conservation of the rivers’ natural values (MAGRAMA 2012). Since the start of the Strategy, more than a hundred fish passes have been built in dams; in addition, more than two hundred barriers have been removed, mainly in the northern Spanish basins. A general trend of the number of projects carried out is shown in the figure below.

A major part of the report presented the inventories of barriers by river basin districts. In general, most of the basin authorities have a public geo-referenced inventory of large dams; however, some databases did not include updated information on weirs, and some authorities did not respond to the information requested. The collected inventories indicated the existence of about 18,000 barriers in the Spanish rivers, but the databases are incomplete and recent studies estimate that the number of barriers could rise to 26,000 (AMBER project).

Besides the inventories, this report discusses, among other questions, the plans of the river basin authorities to improve river connectivity, and also includes information about databases of constructed or existing fish passages and removed weirs, fish species inventories near barriers, public information and participation measures, monitoring programmes or the application of a connectivity index to assess the passability of the obstacles.
A general north-south gradient was observed in the amount of information available and its quality regarding the issue of barriers inventory and the development of plans to improve the longitudinal connectivity of rivers in each basin. The information provided was sometimes heterogeneous and incomplete, although the access to this information has generally improved in recent years. This involves a limited public awareness on the remarkable problem of fragmentation in the Spanish rivers. This gap should be completed in order to raise this awareness.

Second block of this report was the presentation of a methodology to assess cost-benefit analysis of the possibility to pass the barrier, which was applied in six cases (see figure below): four dam removal actions and two fishways constructed. This methodology considered the Ecosystem Services (ES) provided by Spanish rivers (Vidal-Abarca and Suárez 2013) and its effects on the constituents of Human Well-Being (Alcamo et al 2003), dealing with the application of economic concepts (the cost-benefit analysis itself) to quantify environmental and ecological values.

For this purpose, the mathematical technique of the Fuzzy Cognitive Maps (FCM) was applied. Experts on restoration and river management were consulted to develop a correspondence matrix between Ecosystem Services and Human Welfare indicators for the specific case of barrier permeability, in which each variable was weighted according to expert criteria. Then, a simulation of the system dynamics before and after the action was implemented. The comparison in the variables between the two scenarios (pre and post improvement) were multiplied by the weight assigned to each constituent of Human Well-being. The sum of these values was then considered the final benefit obtained in the project in each of the obstacles. Finally, the total cost of every project was compared with its benefit.

In general, the trends indicated positive relationships between the cost of the action and the benefits, which suggests that the barrier removal works are beneficial for both Ecosystem Services and constituents of Human Well-Being. Therefore, the results indicate that the dam removal will be an advisable option whenever possible (e.g. when the water rights have officially expired), since the theoretical benefit will always be greater than its cost, because the river will recover its naturalness to a greater or lesser extent. A final idea was that, instead of talking about cost-benefit studies, it can be interesting to talk about the amortization period of the removal project. This would serve to prioritize actions (in case of limited budgets) but not to determine whether to remove or not, since it should be removed whenever necessary.
The Warsaw University of Life Sciences is organising a summer school that will take place on 1st – 6th July 2018 in Warsaw. It is open to students in existing MSc and PhD water management related programs from Europe, Mediterranean and Caucasus regions.

Organised by the Global Water Partnership Central and Eastern Europe, and supported by UNESCO WWAP, Solidarity Water Europe, Youth for Water and Climate platform, the summer school is designed to enhance the skills of students in water resources, to bring new knowledge on current global and regional water issues and innovative ways to address them.

The program is focussed on the international water governance, the Sustainable Development Goals (SGDs), green infrastructure and innovative solutions with a special focus on Water Security and Climate Resilience. Guest lecturers and practitioners will provide the students with valuable insights into river basin management, river restoration, transboundary water issues, water governance, integrated urban water management and climate change.

The participants will learn how the planning and decision making at national and regional levels is influenced by the latest analyses and processes on the global level. There will be case studies on application of integrated water resources management, as well as many practical exercises and group work.

A very important part of the Summer School will be a dialogue called Youth Voices → Policy Choices. This initiative will provide an interactive platform for a dialogue between young water advocates with decision-makers. Young leaders will meet with experienced policymakers to craft actionable visions for water in advance of the 24th Session of the Conference of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC COP24) that will be held on 3rd – 14th December 2018 in Katowice, Poland.

There are several possibilities for financial support, especially for applicants from Armenia, Bulgaria, France, Hungary, Latvia, Moldova, Poland, Slovakia, Ukraine and from universities which are registered partners to GWP CEE, GWP MED and GWP CACENA. The participants must be able to communicate fluently in English. Selection will be made on first come-first served basis, and the deadline is 13th May.

Application, agenda and further details on the eligibility and financial support can be found on www.gwpcee.org.
ENVIRONMENTAL FLOWS DETERMINATION AND MONITORING WITH HYDRAULIC HABITAT MODELS

The journal Water (ISSN 2073-4441, IF 1.832) is currently running a Special Issue entitled “Environmental Flows Determination and Monitoring with Hydraulic Habitat Models”. Professor Piotr Parasiewicz, of the S. Sakowicz Inland Fisheries Institute (Poland), is serving as a Guest Editor for this issue.

Hydraulic habitat simulation models were designed for the purpose of quantitative determination of environmental flows that consider the needs of aquatic fauna in rivers and streams. In past 50 years, the modelling techniques were significantly developed, but expectations associated with model utility have also been increased. For further reading, please follow the link to the Special Issue Website at: http://www.mdpi.com/si/water/environmental_flows_habitat_model.

The submission deadline is 30 September 2018. You may send your manuscript now or upon the deadline. Submitted papers should not be under consideration for publication elsewhere. We also encourage authors to send a short abstract or a tentative title to the Editorial Office in advance (water@mdpi.com, evelyn.ning@mdpi.com).

Water is the fully open access issue. Open access (unlimited and free access by readers) increases publicity and promotes more frequent citations, as indicated by several studies. Open access is supported by the authors and their institutes. The Article Processing Charges (APC) for accepted papers are CHF 1500. You may be entitled to a discount if you have previously received a discount code or if your institute is participating in the MDPI Institutional Open Access Program (IOAP), for more information see: http://www.mdpi.com/about/ioap.

For further details on the submission process, please see the instructions for authors at the journal website. First paper in this issue has been published: Abstract: http://www.mdpi.com/2073-4441/10/4/374/

ECRR participation in the Fitness Check of the European Water Directives

The implementation of the EU Water Directives provides opportunities to maintain and restore rivers and wetlands. The ECRR will take part in the upcoming Fitness Check of the Water Framework Directive and Floods Directive of the European Commission. We will contribute by enhancing the availability of information of the successes and challenges to conserving and restoring Europe’s water bodies as means to achieve policy objectives. The participation in the Fitness Check is part of the ECRR’s annual workplan jointly with the Wetlands International European Association, making use of the River-Wiki, developed under the LIFE RESTORE Rivers project, and its outputs. It will reinforce the ECRR as a competent knowledge platform and catalyst for river restoration implementation through recognition at the EC level.

The Fitness Check of the Water Directives

In 2018-2019, the European Commission will perform a Fitness Check of the Water Framework Directive (2000/60/EC) and the Floods Directive (2007/60/EC). This evaluation will also

The evaluation of the WFD is foreseen in WFD Article 19(2). This article stipulates that the European Commission ‘will review [the WFD] at the latest 19 years after the date of its entry into force (December 2000) and will propose any necessary amendments to it’. This provision requires the Commission to carry out the review, but it does not oblige the Commission to actually propose changes to the EU water laws.

The European Commission has in line with its ‘Better Regulation agenda’ decided to carry out the Water Framework Directive review in the form of the REFIT/fitness check. The Regulatory Fitness and Performance (REFIT) programme was established in 2012 to make EU law simpler and to reduce the costs of regulation whilst achieving benefits. The Better Regulation agenda aims to design and evaluate EU policies and laws transparently, with evidence, and backed up by the views of citizens and stakeholders. The Commission launched a similar Fitness Check for the Birds & Habitats Directives in 2016.

During the Fitness Check, the EU water legislation will be analysed under five evaluation criteria:
1. Effectiveness: Have the objectives of the policy been met?
2. Efficiency: Where the costs involved were justified, were the target changes achieved?
3. Coherence: Does the action complement other actions or are there contradictions?
4. Relevance: Is the EU action still necessary?
5. EU added value: Did the EU action make a difference?

This will include an assessment of the potential for regulatory simplification and burden reduction. The purpose and the steps of the WFD Fitness Check are described in the EC roadmap of the WFD Fitness Check. The roadmap also lists EC publications and studies which will serve as input for the review. Two key steps of the Fitness Check will be the open public consultation and the main stakeholder consultation, both to be taken in 2018.

Public and stakeholder consultations

The open public consultation will be launched around summer (current expectation is late June / early July) and will run until after the 5th European Water Conference on 20-21 September in Vienna. In parallel, the Commission will do a targeted consultation with main stakeholders, including the different regions of the EU countries. This targeted consultation is likely to start around May 2018 and to run until autumn this year. Eventually, after the consultations and assessments are finalised, the Commission will draft a summary report and publish it in 2019.

It is possible that the Commission, at the end of the Fitness Check, announces that amendments to the Water Directives would be needed. Any revision of the Directives could only be decided after the Fitness Check process is completed, and that will be a decision of the next Commission (which could enter office at the end of 2019). The Commission could also announce that no revision will take place but that measures to improve implementation within the current WFD framework would be needed. If the proposal for a revised WFD would be prepared, it would be published at the end of 2021 according to the current Commission’s plans.

Both Member States and NGOs have the experience from implementing the WFD on the ground. The Commission’s stakeholder consultation will be the opportunity to provide structured implementation evidence and to make suggestions for improvements in order to ensure water policies are strengthened to achieve conservation of healthy river ecosystems.

By Eef Silver, Wetlands International – European Association

Restored Kammelkerbeek visited by members of the Netherlands River Restoration Centre (STOWA). © Bart Fokkens
The conference, held on the 20th – 23rd September 2017, in Dublin – Malahide, Ireland, provided an opportunity to exchange in four round tables on progress or difficulties occurring in the implementation of the Water and Flood Directives, with a view to feeding discussions on a possible review of the WFD:
2. Adaptation to Climate Change in basins;
3. Stakeholder and public participation in river basin management;
4. New Emerging Environmental Issues;
Moreover, a preparatory workshop was held on the organization of water data management and electronic reporting, a strong challenge in the context of a balanced implementation of the water legislation.

This report specifically covers Roundtable 1: WFD: Toward the 2019 reviews. A full report is available at www.inbo-news.org

The WFD, enacted in 2000, plans for its «review» in 2019 at the latest. The first issue in this review is the future of the Directive beyond 2027. Now we know, that at this date, the objective of «good status» of water bodies will not be achieved in all basins, contrary to the requirements of the Directive. Therefore, we must question the future of the WFD at this time: should we continue with the same framework, or modify certain elements of the Directive to go beyond 2027?

The impossibility of achieving the «good status of water bodies» by 2027 in spite of the efforts made to reduce the pressures of human activities on water resources and the threat of European disputes are fears shared all over Europe that lead to questions about the operational implementation of the Directive in the years to come. Thinking about the future of water policy has already started at the level of European bodies and Member States. However, it must accelerate, in particular by relying on experts from basin organizations. As part of this thinking, the following elements should be taken into account:

- The principles established in the WFD and its high environmental ambition are widely recognized.
- The effective implementation of the WFD should be based on improving water governance at the regional level by involving all the local authorities and aiming to bridge the communication gap between the EU, Member States, the basins and the public.
- The investments already made to implement the WFD, both from the point of view of the organizations and of the actual work carried out, must be amortized and sustained, and economic studies should be systematically launched to take account of the costs of water use in order to have arguments for planning and sustainability.
- The complexity of EU funding schemes should be simplified in order to allow for efficient investments according to the needs of the Member States.
- The sectoral integration of objectives, especially in the fields of agriculture, industry, soil management and the marketing of chemicals, is a challenge.
- Agriculture is the main user of water resources and the countries affected by water shortage face a quantitative problem that is not covered by the Directive; in these countries additional infrastructure is needed to ensure better management of the resource and an appropriate response to the needs.
- Technical difficulties in defining what is good status and how to report on progress and improvement of aquatic ecosystems and the one-out-all-out principle that masks progress should be reconsidered for the future of the WFD.
- It is important that the definition of good status are stable and the same for everyone in order to be able to use the exchanges of experience and give project owners a stable view of their obligations in the medium term.
• It is essential to understand that the «one out all out» principle is highly demobilizing and must therefore be reviewed.
• The challenges of climate change regarding the quantity and quality of water resources must be integrated into the WFD implementation by introducing more strongly the link between water quality, ecosystem quality and biodiversity, these latter being an asset for climate change in the basins.
• Furthermore, it is still too early to assess the effectiveness of some measures taken for resources or ecosystems.

EUROPE-INBO members consider that the WFD should evolve on the basis of proven scientific advances and adopt a cautious approach in the review of the WFD while staying in line in order to avoid excessive debates, should the Directive be entirely amended. The question is how to best manage the prospect that is emerging (difficulty in achieving the objectives of good status in 2027), knowing that the WFD does not stop in 2027 and that the use of the postponement of delays becomes more difficult.

It is advisable to improve the operational conditions for implementation by both a more pragmatic approach to established objectives based on confirmed scientific data and by the inclusion of the WFD in a European water policy that facilitates integration of WFD objectives into other EU sectoral policies (agriculture, energy, transport, marketing of chemicals, etc.), the development of innovative projects, and the provision of adequate financial and technical support.

The EUROPE-INBO members have doubts about the timetable for the review of the Directive: 2019 seems too early to include the results of the evaluation of the second management plans (deadline 2021) and the possible review would happen during the ongoing third plans, and therefore only applicable after 2027. In order to better feed the discussions with the Commission, EUROPE-INBO members are planning to involve European parliamentarians at the next meeting in 2018 during a roundtable.
THE ECRR ASSOCIATION MEMBER AND PARTNER ORGANISATIONS

Finnish Environment Institute

AGENCE FRANÇAISE POUR LA BIODIVERSITÉ
ÉTABLISSEMENT PUBLIC DE L’ÉTAT

WORLD FISH MIGRATION FOUNDATION

Global Water Partnership

WARSZAWSKA UNIWERSYTET NARODOWY

stowa FOUNDATION FOR APPLIED WATER RESEARCH

RosniiKh

The network for best practices of river restoration in Greater Europe

ECRR
European Centre for River Restoration
Free ECRR Network Subscriptent

All who are interested in river restoration and sustainable water management are encouraged to join the ECRR. Subscribers receive the ECRR Newsletter about four times a year and are the first to be informed about activities by the ECRR, its members and partner organisations.

To register, go to www.ecrr.org.

If you want to unsubscribe for the newsletter, please send an email to info@ecrr.org.

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ECRR Events calendar 2018

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<th>Title / issue</th>
<th>Location</th>
<th>Links</th>
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<tr>
<td>4–8 June, 2018</td>
<td>I.S.Rivers2018 3e International Conference Integrative sciences and sustainable development rivers</td>
<td>Lyon, France</td>
<td><a href="http://isrivers.org">http://isrivers.org</a></td>
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<td>26–31 August, 2018</td>
<td>World Water Week</td>
<td>Stockholm, Sweden</td>
<td><a href="http://www.worldwaterweek.org">www.worldwaterweek.org</a></td>
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<td>17–20 October</td>
<td>16th EUROPE – INBO 2018</td>
<td>Sevilla, Spain</td>
<td><a href="http://www.inbo-news.org/agenda">www.inbo-news.org/agenda</a></td>
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<td>22–26 October</td>
<td>4th Italian River Restoration Conference</td>
<td>Bologna, Italy</td>
<td><a href="http://www.cirf.org">www.cirf.org</a></td>
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Call for articles

The newsletter of the ECRR should also be a way to share with one another what interesting work is being done, information about seminars or literature. One way of doing this is by writing an article of any project, event or literature you may be acquainted with. Send this article (maximum of 500 words) to the secretariat of the ECRR at info@ecrr.org

We will take a close look to the content and if it is coherent with the philosophy of ECRR (ecological river restoration and sharing knowledge) your article will be published with pleasure in the next edition (s) of the ECRR Newsletter.

The secretariat of the ECRR hopes to receive any article on ecological river restoration from any of its members.

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This newsletter is a co-production by the Iberian River Restoration Centre (CIREF) and the Russian Research Institute for Integrated Water Management and Protection (RosNIIVHk) as National River Restoration Centres and members of the European Centre for River Restoration (ECRR).