



FINAL EVALUATION  
**CH1: RESTORING AND PROTECTING RIVERS**  
**2018-2022**

19.10.2022

# 1. INTRODUCTION

Healthy streams and rivers are a vital source of life and tremendously important for biodiversity. However, in Switzerland, water bodies of all kinds are in a particularly poor state. And even though improved water protection regulations have been in place since 2011, many unspoiled, natural stretches of water remain insufficiently protected. And good legislation alone is not enough to improve the quality of water bodies. Implementation is also key.

This partnership enabled us to undertake comprehensive work to protect and improve the ecological quality of water bodies in Switzerland. We achieved our goals through political and campaign work, numerous specific projects, and the development of a strong network. We also had the flexibility to react to changing circumstances and try out new ideas. Despite complex political developments and unexpectedly slow implementation, we succeeded in improving the protection and quality of water bodies in Switzerland, and in maintaining high regulatory standards.

## OBJECTIVES

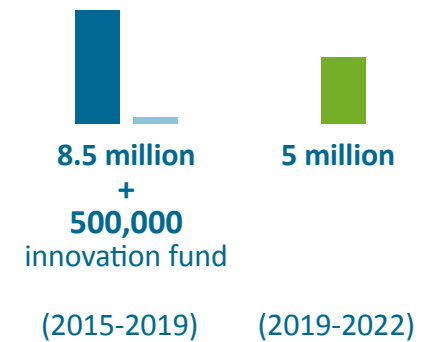
- maintain and improve current legislation;
- establish high implementation standards;
- support restoration and rehabilitation projects to improve ecological status in priority catchments;
- preserve and protect the last unspoiled stretches of water ('river pearls');
- empower partners and building a powerful network for water protection in Switzerland;
- raise awareness about the value of natural watercourses with authorities and the general public.

## THE PARTNERSHIP

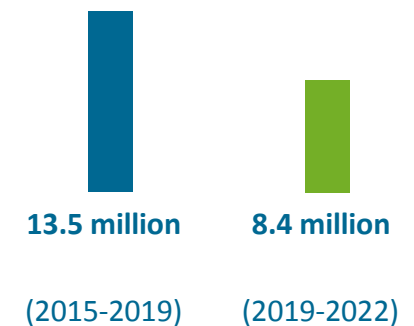


## BUDGET ENGAGED

### TOTAL MAVA BUDGET (IN CHF)



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**FLAGSHIP PROJECTS**  
River Pearls, Salmon Comeback, Riverwatch, Priority Catchment Areas.

**INFLUENCING POLITICS AND LEGISLATION**  
Reducing harmful subsidies, generating funds for implementation and rehabilitation, preserving water protection law and, at best, improving it.

**ENSURING IMPLEMENTATION**  
Define and plan room for rivers, initiate protection and usage planning, implement and accelerate revitalization and rehabilitation.

**ECOLOGICAL QUALITY OF WATERBODIES**  
Improved hydrology, sediment management, connectivity, room for rivers and water quality

**TARGETS: ECOSYSTEMS AND SPECIES**  
Improving ecological status of priority freshwater ecosystems and freshwater species.

**COMMUNICATION**  
Raising awareness among decision makers and the general public

**STRONG NETWORK**  
Alliances and capacity-building: transfer of knowledge, establishing best practices, WWF internal capacity-building, supporting stakeholders. Effective collaboration with private individuals, NGOs, authorities, and politicians.

## 2. PROGRESS AND ACTIVITIES

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The partnership's flexible approach enabled us to select and continuously adapt activities in cooperation with different interest groups, and in doing so, generate as much impact as possible. For example, we had to invest more than expected to secure legal protection measures. Simultaneously, we took a proactive role in speeding up the slow pace of implementation, especially with respect to the ecological rehabilitation of existing hydroelectric power plants and the restoration of affected stretches of water. We succeeded in becoming a credible stakeholder, and through the 'Gewässerperle PLUS' (River Pearl PLUS) seal of approval, we created a new instrument to protect water bodies. We successfully put dam removal on the political agenda, together with the retirement of legacy (or grandfathered) water rights, which is a promising means for advancing river connectivity. We focused on priority catchment areas, and our work led to the emergence of new regional organizations dedicated to protecting and valuing rivers.

### STRATEGY 1: BUILD STRONG ALLIANCES, CRITICAL CAPACITY, AND KNOWLEDGE

We succeeded in building strong partnerships in various fields. At cantonal and national levels, we now have good, regular contact with decision-makers who see us as competent professionals. And through increased interaction with other stakeholders, we were able to increase their awareness of our objectives. Our activities included:

- building the Water Alliance with our NGO partners;
- supporting the Swiss Fisheries Federation (SFV) to lead on fish migration and residual water;
- strengthening WWF at a national level, and strengthening the WWF network at the international level;
- establishing water platforms and training events for WWF and partners including on sediment management, fish migration, climate change and salmon re-introduction;
- participating in national platforms for the rehabilitation of hydro-power installations and revitalization as part of Water Agenda 21.

### STRATEGY 2: INFLUENCE STRONG WATER LEGISLATION

In recent years, we managed to block attacks on legal provisions governing water bodies and nature conservation. Of particular note were the comprehensive and intensive negotiations conducted at the Hydropower Round Table where we, as the leading environmental NGO partner, were able to sign a joint declaration with all relevant stakeholders at national level. Our activities included:

- blocking various attacks on legal provisions, including on residual water, and spaces reserved for bodies of water;
- making energy legislation and subsidies more environmentally friendly, including securing a 1 MW subsidy lower limit, biotope protection, and pollutant reduction path for nutrients and pesticides;
- influencing various ordinances and implementation guidelines, including energy ordinances, the Hydraulic Engineering Act, implementation guidelines on bedload management, and best practices for the rehabilitation of hydroelectric installations.

### STRATEGY 3: ENSURE IMPLEMENTATION OF LEGISLATION IN PRIORITY CATCHMENTS

We identified ten priority catchment areas, and in some, we created independent organizational structures committed to implementing our objectives. Owing to the size of catchment areas, the implementation process is lengthy and is not yet complete. Our activities included:

- negotiating improvements in ecological standards for hydropower, rehabilitation, and flood control projects;
- pursuing legal cases to ensure compliance with environmental law and set standards in other areas (Reuss flood control, Moesa<sup>1</sup> residual water, water bodies in the Muotadelta<sup>2</sup> area, Hammer<sup>3</sup> hydroelectric facility);
- creating and supporting organizations in various catchment areas, including IG (interest group) Lebendige Thur, IG Lebendige Reusstal, Lebendiger Alpenrhein, Doubs Vivant, and Pro Terra Engiadina.

### STRATEGY 4: PROTECT 'RIVER PEARLS'

We successfully progressed our project to preserve and protect Switzerland's last remaining unspoiled waters. In addition to political work and using existing protective instruments, we influenced the creation of a new, innovative protective instrument: the 'Gewässerperle PLUS' (river pearls PLUS) seal of approval. We complemented this work with specific valuation measures and awareness-raising activities, integrating various approaches. Our activities included:

- identifying 64 'river pearls' through comprehensive analysis, all of which have been preserved in good condition;
- improving the protection status of various 'river pearls' through protection and land use planning or other existing instruments;
- developing the 'Gewässerperle PLUS' certification system and initial certifications (Beverin and Chamuera<sup>4</sup>);
- raising public awareness through campaigns and stakeholders engagement.

### STRATEGY 5: PUSH CANTONS FOR MORPHOLOGICAL RIVER RESTORATION IN PRIORITY CATCHMENTS

Having identified the most important cantonal levers for accelerating and improving revitalization projects, we were able to influence those levers through targeted initiatives and proposals. Promising revitalization projects are now underway but such processes take a long time and are seldom conflict-free, which is why, in many instances, tangible results have not yet been achieved. Our activities included:

- crafting and implementing WWF Switzerland's revitalization strategy;
- conducting and implementing a study to accelerate revitalization processes;
- developing revitalization ideas, for example, in the Murg estuary<sup>5</sup>, more specifically the optimization and acceleration of revitalization projects through collaboration and lobbying;
- developing preliminary or feasibility studies, leading to accelerated implementation of individual revitalizations.

<sup>1</sup> River in the Misoix, a southern valley of Graubünden.

<sup>2</sup> River in the canton of Schwyz flowing into Lake Lucerne.

<sup>3</sup> Power station on the Lorze in Zug.

<sup>4</sup> Water bodies in the Upper Engadine.

<sup>5</sup> Important common nase (*Chondrostoma nasus*) spawning waters in Thurgau.

## STRATEGY 6: COMMUNICATE WITH DECISION-MAKERS AND THE GENERAL PUBLIC

We secured continuous media profile for our priority areas. Our communication campaigns on 'river pearls' and 'Salmon Comeback' were particularly successful. We were also able to showcase new topics, such as dam removal. And we successfully raised funds for specific projects such as the interest group "Lebendige Thur". Our activities included:

- running the Cool Waters Summer Campaign on River Pearls;
- running the 'Salmon Comeback' campaign Basel;
- running a social media campaign to protect the most valuable habitats;
- raising funds for the Lebendige Thur, moor conversation, 'Salmon Comeback', and river pearls projects.

### KEY LESSONS

On the whole, our chosen strategies proved effective, and related measures appropriate. However, we underestimated how long many processes would take and the overall level of political resistance that we would encounter.

1. The best laws are of little value if their enforcement is not guaranteed.
2. Programme approaches (unlike standalone projects) allow for greater flexibility and better adaptation to changing framework conditions.
3. Implementation in Switzerland is going even more slowly than expected creating an implementation deficit.
4. Despite full commitment and the implementation of planned measures, there is still a high level of political pressure on water bodies, and a point of inflection has not yet been reached.
5. Through years of meticulous work, WWF has been able to position itself as a reliable and serious stakeholder, and this is now paying off.
6. By building a broad network of empowered partners, the majority of attacks on water body protection could be successfully countered.
7. The Riverwatch project has mobilized many volunteers and has achieved a high degree of visibility. Implementing concrete revitalizations with volunteers has proven successful in individual cases.
8. New and bold approaches such as the 'Salmon Comeback' campaign, and 'Gewässerperle' PLUS, paid off and helped secure the involvement of new target groups. It is still difficult to measure the impact of awareness-raising measures.

### 3. ACHIEVEMENTS AND IMPACTS

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In our priority catchment areas, we are on track to achieve the goals set for 2040. The most valuable water bodies ("river pearls") are still flowing freely, and the water balance has become more natural again through residual water rehabilitation efforts and new licensing. Projects to rehabilitate Schwall-Sunk will make a further contribution to strengthening aquatic biodiversity. Habitats have been enhanced through revitalization, and reconnected through fish migration restoration and dam removal.

Despite growing energy and agricultural policy pressures, regulatory frameworks were maintained and partially improved. For example, the protection of biotopes of national importance was bolstered, and pesticide and nutrient pollutant reduction paths mainstreamed in the agricultural sector. However, we saw only partial success in abolishing harmful subsidies: new small-scale hydroelectric power plants are no longer subsidized but subsidies for larger installations have been increased. But while funding for hydropower rehabilitation is still insufficient, Hydropower Round Table recommendations (see box) offer a solid basis from which to secure funding.

The protection of free-flowing water bodies has been strengthened through cantonal and local approaches, for example, through cantonal protection and land use planning, and in the case of new licenses, through offsetting measures. Cantonal plans for the revitalization of water bodies and the rehabilitation of hydropower installations, as well as implementation guidelines and tools, were improved thanks to professionally-relevant input from WWF. High ecological standards were also established through numerous negotiations and ground-breaking legal cases on residual water rehabilitation, small-scale hydroelectric power stations, and flood control. A Federal Court ruling to repeal legacy (or grandfathered) water rights, for example, led to hundreds of small-scale installations being dismantled or having to comply with modern environmental laws. And with the development of 'Gewässerperle PLUS', we were able to find local partners for water body protection and deliver the first certifications for valuable water bodies.

WWF positioned itself as an important, credible, and respected stakeholder in water management, and our various project partners also significantly enhanced their technical capacity. Polls show that the goals for public awareness-raising are also being met. In addition, hydropower restoration knowledge and capacity were strengthened in the global WWF network, amplifying the programme's impact beyond national borders and its original goals.

## CASE STUDY 1: A SYSTEMIC APPROACH TO CATCHMENT AREA MANAGEMENT ON THE RIVER INN

The River Inn and its tributaries were selected as a priority catchment area. Here, together with regional partners, we implement good catchment area management, making it possible to cater to all interest groups through coordinated measures. As part of the 'Innsieme' project, we put together a management plan for Lower Engadine, and in line with this, implemented a major floodplain revitalization programme near Panas-ch<sup>6</sup>. Additionally, we saw residual water restoration on the Clemgia and Valember<sup>7</sup> as well as restoration of other hydroelectric power installations.

Based on a renewable energy planning pilot study, we also identified water bodies that cannot be developed, including some 'river pearls'. In Upper Engadine, the Beverin and the Chamuera were certified as 'Gewässerperle PLUS'. This led to a hydroelectric power installation on the Chamuera being dismantled, and the Beverin is once again fully navigable for fish. Through participatory processes, we also informed the public about living waters. And we garnered valuable experience in the revitalization of moors, which we are now scaling through national biodiversity and climate protection.



The Ova Chamuera in Upper Engadine near La Punt Chamues-ch: one of the 64 'river pearls' in Switzerland, which in October 2021, was the second water body to be awarded the new 'Gewässerperle' label.

<sup>6</sup> Name of a meadow in Lower Engadine.

<sup>7</sup> Water bodies in Engadin.



## CASE STUDY 2: HYDROPOWER ROUND TABLE: A STEP TOWARDS SUSTAINABLE HYDROPOWER USE

Despite the fact that Switzerland's waters are already overexploited, there is enormous political pressure for further expansion of hydropower. In this context, we triggered a first national level discussion on hydropower.

Through the Hydropower Round Table, representatives of cantonal conferences, the electricity and hydropower industry, and environmental organisations agreed on a way to strengthen power supply security in winter while also minimizing the disturbance of natural flows and making hydropower more ecological. And thanks to years of dialogue with important stakeholders in the water industry, WWF was able to bring its influence to bear to attain a promising outcome: further hydropower expansion should focus primarily on locations that are already polluted and should be accompanied by comprehensive measures to protect nature and the countryside.

This means prioritizing the use of existing reservoirs over new hydropower development in valuable natural areas, implementing existing regulations consistently, giving equal consideration to biodiversity protection in energy planning, and ensuring offsetting measures create added value for nature. In addition, the ecological restoration of existing hydroelectric power plants should be promoted and adequately funded.



The Val Roseg in Upper Engadine with the Ova de Roseg: The valley with its valuable floodplain areas is to be preserved in its natural state in line with the recommendations of the Hydropower Round Table.

## KEY IMPACTS

The 8-year water programme leaves behind some great achievements. These include enhanced capacity amongst partners, higher quality implementation of water protection acts, improved protection of the most valuable water bodies, and a powerful and viable network for water protection. Despite growing opposition, progress has also been made on improving the regulatory framework governing water use. Notable achievements include the following. Creating inspiring mechanisms for co-creation such as conferences, workshops, meetings to exchange experiences can be very effective.

1. All 64 'river pearls' are in good condition. Through existing instruments and the 'Gewässerperle PLUS' label, their protection is constantly being strengthened.
2. Various cantons with intensive hydropower use have implemented or are developing land use and protection plans, leading to better protection of valuable water bodies and 'river pearls'.
3. Small-scale hydropower facilities of less than 1MW are no longer subsidised, significantly reducing the pressure on water bodies. In addition, no construction of new energy installations can occur in Switzerland's major floodplain and moor.
4. Through intensive and constructive negotiations on rehabilitation and expansion planning for hundreds of power plant projects, ecological improvements were attained, implementation was accelerated, and new standards were set. For example, the outstanding residual water rehabilitation of existing plants was, by and large, completed.
5. Dam removal was positioned as a viable option by national and cantonal authorities and some individual removals have already been successfully implemented, for example, on the Sihl<sup>8</sup> and on the Talent<sup>9</sup>.
6. In important catchment areas, local interest groups have been formed to protect and enhance water bodies and pursue programme objectives.
7. WWF Switzerland is part of the international network for better hydropower standards and supports other WWF country offices in developing and implementing water projects.

<sup>8</sup> Outflow of Lake Sihl which feeds into the Limmat in Zurich.

<sup>9</sup> Water bodies in the canton of Vaud.

## 4. WHAT WILL HAPPEN NEXT

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Once MAVAs funding comes to an end, our work to protect Switzerland's water bodies will continue at a similar level and quality. Strengthened WWF structures, good cooperation with partners, and new partnerships and funding in priority catchment areas provide a strong foundation for this and mean that we can carry on with important activities around 'River Pearls', 'Salmon Comeback', Le bendige Thur, hydropower rehabilitation, revitalization, and reserved spaces. We will continue to pursue WWF goals to secure healthy and species-rich aquatic ecosystems in Switzerland by 2040 and maintain our international professional exchange.

We will also seek to maintain and strengthen legal protection for biodiversity. While upcoming legislative changes in the energy and nature conservation sectors present risks, they also provide great opportunities to increase the protection and restoration of water bodies. Significant flood control projects in major catchment areas offer an opportunity to implement our recommendations to establish a more dynamic freshwater habitat. And we can leverage ecological rehabilitation of existing hydroelectric power installations to restore our rivers. Also, new cantonal revitalization plans, fish migration restoration measures, and repeal of legacy (or grandfathered) water rights, mean we have an opportunity to systematically promote dam removal. And we will increasingly use spatial planning approaches to green implementation processes and deliver greater ecological integrity.

Overall, the strong basis that we have established in recent years through our partnership will enable us to continue shaping and strengthening water protection long into the future.

*“It is only through dialogue that we can meet the challenges of the biodiversity and climate crisis. It is possible to shape the expansion of renewable energies in such a way that... nature wins.”*

Thomas Vellacott, CEO of WWF Switzerland

*“It is our duty to keep these unique water landscapes in pristine condition for future generations. After all, they are the core foundation for the cultural and economic survival of the region.”*

Fadri Guidon, Mayor of the commune of Bever

