

POROČILO ZA ŠIRŠO JAVNOST

Projekt
LIFE 06 NAT/SLO/000069
Presihajoče Cerkniško jezero

LAYMAN'S REPORT

Project
LIFE 06 NAT/SLO/000069
Intermittent Lake Cerknica

KAZALO VSEBINE

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1. OZADJE PROJEKTA

Presihajoče Cerknjsko jezero je eno od najbolj znanih slovenskih kraških znamenitosti tako doma kot po svetu. Kadar je polno, voda poplavi prek 29 km² polja. To območje pa predstavlja tudi projektno območje. Za Cerknjsko jezero je najbolj značilno njegovo presihanje, ki daje čar celotni pokrajini, saj se le ta spreminja iz dneva v dan. Prav zaradi tega so se na jezeru izoblikovale posebne naravne razmere, ki omogočajo veliko pestrost rastlin in živali ter njihovih habitatov.

V preteklosti so ljudje poskušali jezero preoblikovati in podrediti v svojo korist. Tako sta bili v prejšnjem stoletju prisotni tudi skrajni ideji, o njegovi izsušitvi ali stalni ojezeritvi. Izvedenih je bilo veliko posegov v vodotoke in ponorne jame Cerknjskega jezera, ki imajo za posledico spremenjen vodni režim. Nižji vodostaj in krajši zadrževalni čas vode imajo znaten vpliv na vodne in obvodne habitate in organizme, ki v njih živijo.

Prav omenjeni načrti, ki bi trajno spremenili podobo jezera, so v sedemdesetih letih preteklega stoletja vzpodbudili razmišljanja o zavarovanju in ohranitvi jezera. Z Odlokom o Notranjskem regijskem parku leta 2002 in z ustanovitvijo javnega zavoda Notranjski regijski park je Cerknjsko jezero dobilo pravno zaščito. Dodatno zaščito je jezero dobilo z vključitvijo v evropsko omrežje posebnih varstvenih območij Natura 2000 na podlagi prisotnosti nekaterih vrst ptic. Leta 2006 pa je bilo Cerknjsko jezero vpisano tudi na seznam ramsarskih lokalitet in je tako postalo tretje slovensko mokrišče mednarodnega pomena.



Modra stožka (*Molinia caerulea*)

2. CILJI IN NAMEN PROJEKTA

Leta 2006 je Notranjski regijski park pridobil finančna sredstva iz programa LIFE – Narava za projekt LIFE 06 NAT/SLO/000069 »Presihajoče Cerknjsko jezero«, ki sofinancira naravovarstvene projekte na območjih Natura 2000. Namen projekta je bil na Cerknjskem jezeru zagotoviti ugodne pogoje za zaščito in ohranitev ogroženih živalskih in rastlinskih vrst ter njihovih habitatov. Dejavniki, ki ogrožajo biotsko pestrost na projektne območju so predvsem spremenjene struge vodotokov, opuščanje košnje in pomanjkljivo poznavanje narave. Da bi te grožnje odpravili, smo v okviru projekta izvajali različne naravovarstvene akcije, s katerimi smo skušali zagotoviti ugodne pogoje za uspešno gnezditve ogroženih vrst ptic, življenje dvoživk, metuljev in drugih živali ter uspevanje ogroženih rastlinskih združb. S projektom smo želeli spodbuditi ponoven stik ljudi z naravo, domačinom približati pomen biotske pestrosti in jih tudi vključiti v proces varstva narave na tem območju.



Hromi volnoritec (*Eriogaster catax*)

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1. BACKGROUND

Cerknica lake is one of the most important Slovenian Karst sights known worldwide. When the water level is highest it covers over 29 km². That area also represents the project area. Lake's most significant characteristic is its intermittent nature which gives this unique area a special charm. Due to this variability, special ecological conditions were created on the lake that enable rich diversity of animal and plant species and their habitats.

In the past people wanted either to drain or to flood the lake for their benefit. Many interventions were carried out on lake's watercourses and sinkholes that changed the water regime on the lake. The result of the changed water regime is a lower ground water level and faster drying of the lake that has a negative influence on water organisms and habitats. Projects mentioned before that would permanently change the lake have stimulated our consideration to protect the lake. With the act and establishment of a public institution Notranjska Regional Park in 2002 the lake has gained the legal protection. Additionally, Lake Cerknica was included in an European network of nature protection areas Natura 2000 because of the presence of certain bird species and in 2006 it was registered as Ramsar site beside two other Slovenian wetlands of international importance.

2. GOALS AND PURPOSE OF THE PROJECT

In 2006 Notranjska Regional Park acquired financial support from European programme LIFE – Nature for project LIFE 06. The purpose of this project was the establishment of appropriate conditions for protection and conservation of animal and plant species and their habitats on Lake Cerknica. Factors that threaten the biodiversity on Lake Cerknica are modified watercourses, abandoning of meadow mowing and deficient knowledge of nature and its conservation. To abolish these threats we have carried out different nature conservation actions. We have tried to establish favourable conditions for nesting of endangered bird species and the life of the amphibians, butterflies and other animals and endangered plant communities. In the scope of the project we have wanted to stimulate positive human attitude towards nature and biodiversity and to include them in the process of nature conservation.

3. PREDVIDENE REŠITVE

Z namenom varovanja narave in biotske pestrosti na Cerknškem jezeru, smo se tekom projekta usmerili predvsem v izvedbo naslednjih naravovarstvenih aktivnosti:

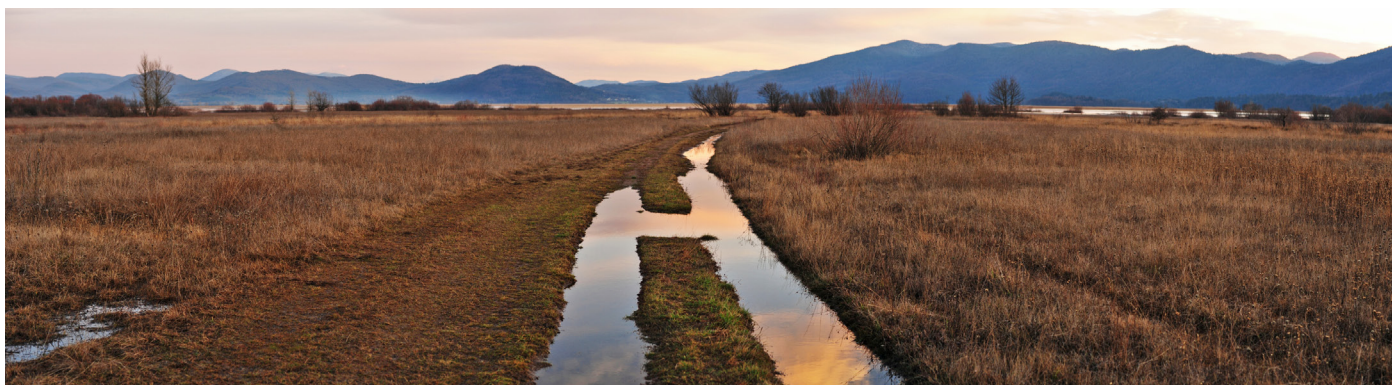
- Obnova strug vodotokov z namenom dviga nivoja talne vode in daljšega zadrževanja vode na Cerknškem jezeru
- Izdelava načrta upravljanja, ki služi kot podlaga za urejanje projektne območja in je usmerjen v ohranjanje naravnih in kulturnih znamenitosti Cerknškega jezera
- Kartiranje habitatnih tipov z namenom varovanja ogroženih habitatov
- Upravljanje z zemljišči, kar vključuje odkup, pozno košnjo ter odstranjevanje zarasti na zemljiščih, namenjenim trajnemu varovanju narave
- Popularizacija projekta in izobraževanje o pomenu narave in njenega varstva

3. PLANNED SOLUTIONS

With the intention of maintaining biodiversity on Lake Cerknica our efforts were oriented to following actions:

- Renaturation of watercourses, that would contribute to higher water ground level and retaining of overall water level on Lake Cerknica
- Composition of a Management plan, which serves as groundwork for managing the project area and is orientated towards conservation of natural and cultural heritage of Lake Cerknica
- Mapping of habitat types with the intention of conserving the endangered ones
- Land managing including buying, late mowing and mulching on the permanently protected land

Popularization of the project and education of the youth on the importance of nature conservation.



Cerkniško jezero v jeseni (Lake Cerknica in autumn)

4. PROJEKTNE AKCIJE IN REZULTATI

Akcija A1

KARTIRANJE HABITATNIH TIPOV IN NAČRT UPRAVLJANJA

Kartiranje habitatnih tipov

V sodelovanju z Oddelkom za biologijo ljubljanske Biotehniške fakultete smo izvajali kartiranje habitatnih tipov na projektne območju. Ugotovili smo, da največji del površine projektne območja poraščajo močvirske združbe. Prevladujejo različne združbe visokih šašev (26,6%) in trstičevja (21,8 %), sledi pa združba jezerskega bička (3,4 %). Ostali habitatni tipi sicer pomembno prispevajo k pestrosti območja, a poraščajo manjše površine.

Med kvalifikacijskimi habitatnimi tipi za določitev območij Natura 2000 so na območju Cerknškega jezera razviti oligotrofni mokrotni travniki z združbami modre stožke (16,1 %), ekstenzivno gojena gojena travnišča (5,7 %), bazična nizka barja (2,0 %), nižinska visoka steblikovja (0,7 %), vegetacija mezotrofnih tekočih voda (0,4 %), bolj ali manj suha travnišča (*Festuco-Brometalia*) (0,3 %), podvodne preproge parožnic (0,2 %), zakoreninjena podvodna vegetacija (0,1 %) in tudi dva prednostna habitatna tipa Natura 2000 – črnojelševja in jesenovja ob tekočih vodah (0,53 %) in združbe navadne rezike (0,002 %). Vse to priča o veliki biotski pestrosti območja in ohranjenosti nekaterih ogroženih rastlinskih združb.

Evalvacija Načrta upravljanja

Koncept Načrta upravljanja je temeljil na evalvaciji načrta upravljanja iz leta 1997, slovenski zakonodaji ter obstoječi dokumentaciji, ki zadeva projektne območje in varovanje narave v Sloveniji in EU.

Dokument vključuje opis značilnosti krajine in naravnih ter družbeno-ekonomskih značilnosti območja. Poudarek je na ekoloških lastnostih območja ter varstvenih ciljih, usmeritvah in ukrepih. Namen načrta je prikazati, kako upravljati z območjem na način, ki bo zagotavljal ugodno ohranitveno stanje rastlinskih in živalskih vrst ter habitatnih tipov in obenem vključiti človeka kot skrbnika naravnih bogastev.

4. PROJECT ACTIONS AND ACHIEVED RESULTS

Action A1

HABITAT TYPES MAPPING AND THE MANAGEMENT PLAN

Habitat types mapping

In collaboration with the Department of Biology, Biotechnical Faculty of Ljubljana we mapped the habitat types on the project area. We discovered that the largest part of the project area is overgrown with tall sedge communities (26,6%) and reed beds (*Phragmites australis*) (21,8 %). Stands of *Schoenoplectus lacustris* are developed on 3,4 % of the area. While other habitat types contribute to overall diversity of the area, they cover smaller surfaces.

Natural habitat types of Community interest present in the Lake Cerknica area are the *Molinia* meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*) (16,1 %), lowland hay meadows (with *Alopecurus pratensis* and *Sanguisorba officinalis*) (5,7 %), alkaline fens (2,0 %), hydrophilous tall herb fringe communities of plains levels (0,7 %), water courses of plain to montane levels with the *Ranunculon fluitantis* and *Callitricho-Batrachion* vegetation (0,4 %), semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) (* important orchid sites) (0,3 %), hard oligo-mesotrophic waters with benthic vegetation of *Chara* spp. (0,2 %), Natural eutrophic lakes with *Magnopotamion* or *Hydrocharition* - type vegetation (0,1 %) and two of the priority habitat types - alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*) (0,53 %) and calcareous fens with *Cladium mariscus* and species of the *Caricion davallianae* (0,002 %). All that bears witness of great biodiversity of the area and the presence of some of the endangered plant communities.

Evaluation of the 1997 Management Plan

The concept of Management plan is based on the evaluation of the 1997 Management plan, Slovenian legislation, and existing documentation concerning the project area and nature protection in Slovenia and the European Union.

The document includes a description of natural features, landscape and socio-economic characteristics of the area. Considerable emphasis is also on the ecological characteristics of the area and protection objectives, policies and measures. The aim of the plan is to demonstrate how to manage the area in a manner that will ensure favorable conservation status of flora and fauna and habitat types and at the same time including man as its warden.

Akcija A2
GEODETSKA IZMERA TERENA NEKDANJIH IN SEDANJIH
VODOTOKOV

Geodetske meritve nekdanjih in sedanjih vodotokov je na več kot 100 ha velikem območju izvedel projektni partner Inženiring za vode d.o.o. Končni rezultat je bila izdelava topografskega načrta v merilu 1:500 z natančno določenimi legami strug vodotokov in izris prečnih profilov vodotokov v merilu 1:100/100. To je predstavljalo osnovo za izdelavo projektne dokumentacije za izvedbo renaturacije vodotokov na območju Cerkniškega jezera.

Akcija A3
GEOLOŠKO SONDIRANJE IN OBDELAVA VZORCEV TAL

Projektni partner Inženiring za vode d.o.o. je s pomočjo vrtalnega stroja izvedel geološko sondiranje nekdanjih vodotokov. Narejenih in analiziranih je bilo vsaj 100 geoloških sond. S tem smo pridobili podatke o globini in sestavi tal zasutih strug, ki so bili potrebni za izdelavo projektne dokumentacije za renaturacijo vodotokov na Cerkniškem jezeru in so pokazali, kje začeti z obnovo starih strug ter kako globoko kopati.

Akcija A4
IZDELAVA PROJEKTA RENATURACIJE VODOTOKOV

Cilj renaturacije je obnova nekdanjih meandrov in s tem podaljšanje zadrževanja vode v sušnem obdobju ter dvig talne vode na močvirnih območjih. Pričakujemo, da se bodo na ta način ekološke razmere v vodotokih in na močvirnih območjih in z njimi življenjski pogoji za rastline in živali izboljšali.

Podjetje Inženiring za vode d.o.o. je izdelalo projektno dokumentacijo, ki temelji na pregledu stanja na terenu in preučitvi lege strug vodotokov pred regulacijskimi posegi. Vanjo je vključenih dobrih 12 km strug vodotokov na območju Cerkniškega jezera.

Akcija A5
AKCIJSKI PLAN RENATURACIJE VODOTOKOV NA
CERKNIŠKEM JEZERU

V Akcijskem planu renaturacije vodotokov Cerkniškega jezera smo strnili ideje, študije in načrte o posegih na jezeru ter podrobneje opisali dejansko izvedene posege, katerih posledica je spremenjen vodni režim jezera. Vključili smo celotni opis izvedbenih del ter časovni in finančni plan renaturacije vseh nekdanj izravnanih vodotokov na Cerkniškem Jezeru.



Močvirski grint (*Senecio paludosus*)

Action A2
LAND SURVEY OF FORMER AND CURRENT WATERCOURSES

A land survey of current and former watercourses on an area larger than 100 ha was carried out by a project partner, Inženiring za vode d.o.o. The result was the production of topographical plans in 1:500 scales with precise positions of water riverbeds' courses and print-outs of transverse profiles of watercourses in the scale 1:100 / 100. This represented a basis for making the project documentation for the implementation of renaturation of watercourses in the area of Lake Cerknica.

Action A3
GEOLOGICAL PROBING AND SOIL SAMPLE PROCESSING

Our project partner, Inženiring za vode d.o.o. conducted the works mechanically with a drilling rig that carried out geological probing of former watercourses. At least 100 geological probes were made and analyzed. In this way we obtained the data on the depth and composition of soil in the filled riverbeds, which was necessary for the production of project documentation for renaturation of watercourses in the area of Lake Cerknica and showed where to begin the renaturation of the former watercourses and how deep to dig.

Action A4
WATERCOURSE RESTORATION PROJECT

The aim of renaturation is the restoration of former meanders and by doing so retaining the water longer in the dry period and increasing the groundwater level in wetland areas. We expect that in this way the ecological conditions of the wetland areas, and thereby the living conditions for flora and fauna, improve.

Inženiring za vode d.o.o. produced the project documentation, based on a review of the situation on the terrain and examining the location of riverbeds as they were before the regulating operations began. More than 12 km of watercourses in the Cerknica area are included in this study.

Action A5
PLAN FOR THE RESTORATION OF LAKE CERKNICA WATERCOURSES

In the Action Plan for renaturation of watercourses in Lake Cerknica our ideas, studies and plans of the interventions in the lake have been resumed and the actual implemented interventions resulting in a modified water regime of the lake have been described in detail. A complete description of implementation of works and a frame time and financial plan of renaturation of watercourses in the Lake Cerknica are also included.



Izvir Goriškega Brežička (Source of Goriški Brežiček stream)

Akcija B1
PRIPRAVA DOKUMENTACIJE ZA ODKUP ZEMLJIŠČ

Za nakup zemljišč na projektnem območju smo razvili postopek, ki vključuje pripravo obsežne dokumentacije, pridobitev vseh potrebnih dovoljenj in soglasij ter sklenitev prodajne pogodbe pri notarju. Gre za prvi primer odkupa zemljišč v Sloveniji, ki poteka v skladu z Zakonom o ohranjanju narave. Iz tega razloga celoten postopek predstavljamo kot primer dobre prakse tudi drugim upravljavcem zavarovanih območij, ki želijo z nakupom zemljišč narediti prvi korak k dolgoročnemu varstvu narave.

Akcija B2
ODKUP ZEMLJIŠČ NA OBMOČJU CERKNIŠKEGA JEZERA
NAMENJENIH TRAJNEMU VAROVANJU

V času trajanja projekta je bilo z namenom trajnega varovanja narave in ohranjanja kulturne in naravne dediščine odkupljenih 260 ha zemljišč. Odkup in skrb za ta zemljišča je pravzaprav edini način aktivnega varstva travniških in drugih ogroženih habitatov na območju Cerknškega jezera.

Akcija C1
PREPREČEVANJE ZARAŠČANJA BARJA DUJCE S SMREKO IN
Z BOROM

Barje Dujce sodi med večja nizka barja v Sloveniji in je razmeroma dobro ohranjeno. Vendar se zaradi posegov v preteklosti, ki so znižali nivo talne vode, Dujce danes pospešeno zaraščajo. Predvsem z borom in s smreko. Cilj te akcije je bil odstraniti grmovno in drevesno zarast in tako ohraniti barje z njegovimi rastlinskimi posebnostmi, na primer belo kljunko (*Rhynchospora alba*) ter ponovno omogočiti primerne razmere za gnezdenje kozice (*Gallinago gallinago*) in velikega škurha (*Numenius arquata*) na Dujcah.

Slaba nosilnost tal onemogoča strojno čiščenje osrednjega dela barja, zato smo decembra 2007 organizirali delovno akcijo, v kateri so udeleženci očistili 1,5 ha zaraščene površine. Z odstranjevanjem zarasti smo nadaljevali v zimskih mesecih skupaj z Javnim podjetjem Komunala Cerknica, d.o.o. V letu 2009 je bila grmovna in drevesna zarast na območju Dujce odstranjena.

Action B1
PREPARATION OF DOCUMENTS FOR LAND PURCHASE

In order to purchase the land in the project area the procedure including preparation of an extensive documentation, the acquirement of permits and consents required and verification of contracts by the notary was put forward. As this was the first case of land purchase in accordance with the Nature conservation act in Slovenia we are presenting it as an example of good practice to other managers of protected areas who plan to protect the wildlife through land acquisition.

Action B2
PURCHASE OF LAND IN THE AREA OF LAKE CERKNICA TO BE
BROUGHT UNDER PERMANENT PROTECTION

During the project 260 hectares of land were purchased to be set aside for long term protection of wildlife and conservation of cultural and natural heritage. Buying these plots of land and taking care of them is actually the only way to protect meadows and other threatened habitats in the area.

Action C1
PROTECTION OF THE DUJCE FEN FROM BEING OVERGROWN WITH
SPRUCE AND PINE

The Dujce fen is one of the biggest and relatively well preserved alkaline fens in Slovenia. However, the past amelioration work resulting in lowered groundwater level is the main reason that the bog is being overgrown with pine and spruce at an alarming rate. The goal of this action is the removal of unwanted coppice and conservation of this fen and its special plants for example white beak-sedge (*Rhynchospora alba*) and to make suitable nesting conditions for Snipe (*Gallinago gallinago*) and Curlew (*Numenius arquata*) possible.

Low carrying capacity of the marshy soil makes mechanized clearing of the central part of the fen impossible. For this reason the public action that was met with great response was organized. The participants have cleared away 1,5 hectares of the overgrown fen. In collaboration with enterprise Komunala Cerknica d.o.o. we continued to work in the winter months and in the year of 2009 all of the unwanted woody coppice was removed from the Dujce fen.



Obnovljeni meandri Goriškega Brežička (Restored meanders of Goriški Brežiček stream)

Akcija C2
RENATURACIJA GORIŠKEGA BREŽIČKA

Z obnovo nekdanjih meandrov Goriškega Brežička nameravamo dvigniti nivo podtalnice na predelu barja Dujce, ki sodi med kvalifikacijske habitatne tipe za določitev območij Natura 2000, in s tem vzpostaviti primerne razmere za vzdrževanje tega barja. Izvajalec del – podjetje TGM Bizjak, Dušan Bizjak s.p. je renaturacijo izvedlo na približno 500 m dolgem odseku v zgornjem delu struge Goriškega Brežička ter na 200 m v spodnjem delu, pred izlivom v Lipsenjščico.

Action C2
RESTORATION OF THE GORIŠKI BREŽIČEK STREAM

By restoring former meanders of the Goriški Brežiček stream we intend to raise the groundwater level in the area of the Dujce fen which ranks among the qualifying habitats for determining the Natura 2000 areas, and thus restore appropriate conditions for sustaining this bog. The company TGM Bizjak, Dušan Bizjak s.p. completed the restoration works on approximately 500 m long section of upper stream and on 200 m in its lower part at the confluence with the Lipsenjščica stream.

Akcija C3

RENATURACIJA TRESENECA

Renaturacije nekdanje struge potoka Tresenec od njegovega izvira proti požiralnikom Levišča smo se lotili z namenom dvigniti nivo talne vode in na ta način omogočiti primerne razmere za uspevanje značilnih vodnih in obrežnih rastlinskih združb. Tresenec je izjemnega pomena tudi za živalski svet, saj je edini vodotok na Cerkniskem jezeru, ki se nikoli ne presuši in tako v času suše predstavlja zatočišče vodnim živalim. Tudi zato lahko ob Tresencu še opazimo sledi vidre (*Lutra lutra*). Podjetje GRADBINKO d.o.o. je obnovilo staro strugo v dolžini 650 m.



Sviščev mravljiščar (*Maculinea alcon*)

Akcija D1

NAKUP MEHANIZACIJE ZA KOŠNJO, SPRAVILO SENA IN MULČANJE

Zaradi majhne nosilnosti močvirnih tal smo izbrali traktor z majhno maso, ki pa je obenem dovolj zmogljiv za košnjo goste travinje. S pozno košnjo se preprečuje zaraščanje močvirnih travnikov in tako vzdržuje primeren življenjski prostor ogroženih živali in rastlin. Pokošeno travinjo je potrebno s travnika tudi odstraniti, zato smo poleg traktorja kupili tudi kombiniran stroj za spravilo sena. S kupljenim mulčarjem pa odstranjujemo grmovno zarast na določenih robnih delih projektnega območja po končanem gnezditvenem obdobju.

Akcija D2

NAKUP TERENSKEGA VOZILA

Večina projektnih aktivnosti je bila vezanih na težje dostopne predele jezera, zato smo skladno z obstoječo zakonodajo kupili terensko vozilo.

Akcija D3

KOŠNJA POPLAVNIH TRAVNIKOV CERKNIŠKEGA JEZERA

Zaraščanje travnikov zaradi opuščanja tradicionalne rabe tal ogroža njihov obstoj in s tem preživetje vrst, ki so na travišča vezane. Redna košnja je zato bistvenega pomena za varovanje teh življenjskih prostorov, to pa ključno za učinkovito varstvo vrst. Močvirni travniki v lasti Notranjskega regijskega parka so namenjeni trajnemu varstvu, zato na njih gospodarimo na naravi prijazen način. Način košnje smo prilagodili predvsem pticam, ki tu živijo in smo jih v Evropi spoznali za ogrožene in potrebne varstva.

Action C3

RESTORATION OF THE TRESENEC STREAM

We undertook the restoration of the former riverbed of Tresenec stream from its source in the direction of Levišča sinkholes in order to raise the level of groundwater and thus enable the sustenance of characteristic water and river-bank plant communities. The Tresenec stream is also of great importance to the animal world since it is the only watercourse in the Lake Cerknica area that never runs dry and as such offers refuge for the water animals in the times of drought. On its banks you can still find elusive Otter's (*Lutra lutra*) footprints. GRADBINKO d.o.o. enterprise completed the restoration on 650 m long section of the Tresenec stream.

Action D1

PURCHASE OF THE MECHANIZATION FOR MOWING, HAY HARVESTING AND MULCHING

Due to the low carrying capacity of the marshy soil in the project area the tractor with low mass but at the same time with enough power to mow the dense grasslands was purchased. Autumn mowing of the wet meadows prevents them from being overgrown with woody plants and thus assures the sustenance of suitable habitats of threatened animal and plant species. The hay has to be removed from the meadows, that is why combined machine for bringing in the hay was bought. Mulching machine is used after the nesting period to remove bushy coppice in some marginal parts of the project area.

Action D2

PURCHASE OF AN OFF-ROAD VEHICLE

Since most of the project activities were bound to the parts of Lake Cerknica that are difficult to access the off-road vehicle was needed. It has been purchased in accordance with the legislation.

Action D3

MOWING OF FLOOD MEADOWS AT LAKE CERKNICA

Meadows are being overgrown with coppice on account of abandoning the traditional land use. This threatens the existence of these habitats and thus the existence of species that depend on them. That is why regular mowing is of vital importance in protecting these habitats and their inhabitants. Since wet meadows purchased by Notranjska Regional Park are meant for long-term protection our approach to their management is nature-friendly. The mowing method we use is best suited to birds that live on these meadows. These meadows host many bird species, some of them recognized as threatened in Europe.



Močvirski svišč (*Gentiana pneumonanthe*)



Območje mulčanja na Retju (Retje – mulching area)

Akcija D4

MULČANJE OBREŽNEGA GRMOVJA

Zaradi opuščanja košnje se v zadnjih letih grmišča z roba Cerkniškega jezera širijo v njegovo notranjost. Z odstranjevanjem lesnate zarasti želimo povečati površino travnikov, kjer si iščejo hrano tudi mnoge ogrožene vrste živali, ki stalno živijo ali pa se le zadržujejo na območju Cerkniškega jezera. Na zaraščenem območju smo zato leta 2007 pričeli s postopnim odstranjevanjem grmovne vegetacije. Z območja, ki je bilo za stroje nedostopno, smo drevesa in grmovje odstranili ročno. Nadaljna dela je večinoma izvajalo podjetje JP Komunala Cerknica d.o.o. Mulčanje smo po zaključku gnezdenja, jeseni in pozimi, izvajali na površinah, ki skupaj merijo 25 ha. Obnovljene travniške površine bomo v prihodnosti vzdrževali s primernim režimom košnje.

Action D4

MULCHING OF LAKE EDGE SHRUBS

Discontinuation of haymaking is the main reason that marginal shrubs are advancing towards the centre of Lake Cerknica. That is why we have begun to gradually remove the coppice according to the action plan in the year 2007. In November of 2007 we have manually cleared out 0,5 ha of overgrown land that was unapproachable to mechanization. The enterprise JP Komunala Cerknica d.o.o. was chosen in 2008 in order to accomplish intended work. Mulching is being implemented in autumn and winter after the bird nesting season is over on the surface area of 25 ha. We intend to sustain the restored meadows with suitable mowing regime.

Action E1

POPULARIZATION OF THE PROJECT

Project group has informed the public about the course of the project on more different levels:

Lectures and other activities for local and general public

31 lectures for professional, local and general public were performed that had very good media support both on local and national level.

Articles in local and national newspapers

102 articles in printed media, mostly in local newspapers were published. 22 articles were also published in the monthly bulletin eNatura under the Ministry of Environment and Spatial Planning.

Announcements on radio and TV stations

There were 117 publications on local and national TV and radio stations, concerning the LIFE project. The project group regularly cooperated with local radio station (Radio 94 in NTR), to which information about the course of the LIFE project and planned activities in the scope of the project were regularly delivered. The public was informed about the importance of nature protection and conservation. The project group also cooperated in radio show named Rompompom for young people, for which 5 broadcasts were prepared.

Contributions concerning the nature protection and conservation were published monthly on the local TV station (TV Oron) The project and work within it was also presented in several talk shows on the local TV station. The advertisement for buying agricultural land in the area of Lake Cerknica was also regularly transmitted.



Enovrati glog (*Crataegus monogyna*)

Akcija E1

POPULARIZACIJA PROJEKTA

Obveščanje javnosti o poteku projekta je potekalo na več nivojih:

Predavanja in druge aktivnosti za lokalno in širše prebivalstvo

V času trajanja projekta je bilo izvedenih 31 predavanj za strokovno občinstvo ter lokalno in širše prebivalstvo, ki so bila dobro medijsko podprta, tako na lokalni kot državni ravni.

Članki v lokalnih in nacionalnih časopisih

O projektu in ostalih aktivnostih smo objavili 102 prispevka v slovenskih tiskanih medijih, največ v lokalnih časopisih. Objavili smo tudi 22 člankov z naravovarstveno vsebino v biltenu e-Natura, ki ga izdaja Ministrstvo za okolje in prostor.

Objave na radijskih in televizijskih postajah

Tekom projekta smo redno sodelovali z lokalnima radijskima postajama (Radio 94 in NTR), na katerih smo poročali o projektih aktivnostih ter prebivalce seznanjali s pomenom narave in njenega varstva. Sodelovali smo tudi v radijski oddaji za mlade - Rompompom. Na lokalni televizijski postaji (TV Oron) smo večkrat sodelovali v pogovornih oddajah in mesečno objavljali prispevke v zvezi z varstvom narave. Redno smo oddajali oglas za nakup kmetijskih zemljišč na poplavnem območju Cerkniškega jezera. V času trajanja projekta je bilo na lokalnih in nacionalnih televizijskih in radijskih postajah skupno objavljenih 117 prispevkov v zvezi s projektom.



Srednja rosika (*Drosera intermedia*)

Informativne table na Cerknškem jezeru

Informativni tabli, ki obiskovalce seznanjata s projektom LIFE sta postavljeni na vstopnih delih jezera (Dolenje Jezero in Gorenje Jezero).

Zloženska o projektu

Izdali smo zloženko o projektu, v kateri so opisane naravovarstvene akcije. Brezplačno zloženko namenjeno popularizaciji projekta smo razdelili udeležencem naravoslovnih dni, ekskurzij, predavanj in raziskovalnih taborov, knjižnicam, šolam in vrtcem, Občini Cerknica ter drugim javnim zavodom.

Obvestila na oglasni deski v lokalnem trgovskem centru

Lokalno javnost smo obveščali o vseh dogodkih, ki smo jih organizirali tudi z obvestili in vabili, ki smo jih objavili na oglasni tabli v trgovskem centru Mercator v Cerknici.

Bilten

V biltenu Novice Notranjskega regijskega parka smo predstavljali živi svet Cerknškega jezera, namen in akcije v okviru projekta in potek del.

Spletna stran

Na spletni strani (<http://life.notranjski-park.si>) smo širši javnosti predstavili projekt.

Monografija o Cerknškem jezeru

Monografija s fotografijami in krajšimi besedili predstavlja edinstveno naravo presihajočega Cerknškega jezera in projekt LIFE. Brezplačen izvod je namenjen vsem gospodinjstvom občine Cerknica, šolam, knjižnicam po Sloveniji in projektnim partnerjem ter drugim sodelavcem parka.

Igra 'Spomin'

Z igro 'Spomin' smo naravo Cerknškega jezera na še en način poskušali približati tako otrokom kot odraslim. Igro sestavljajo kartice s fotografijami živali in rastlin, ki živijo na območju Notranjskega regijskega parka in so ogrožene v evropskem merilu.

Akcija E2

DELO Z MLADIMI

Kot investicijo v prihodnost smo si v okviru projekta za cilj zadali vse otroke in mladostnike, ki živijo znotraj parka, seznaniti z našim delom in prizadevanji, predvsem pa s pomenom in neprecenljivo vrednostjo narave. Vzgojno izobraževalno delo pa se ne konča znotraj meja parka, zato smo jih prestopili.

V okviru te akcije smo izvedli naslednje aktivnosti:

- Ustanovitev naravovarstvene mreže šol in vrtcev Notranjskega regijskega parka
Vključuje šole in vrtece, ki z Notranjskim regijskim parkom sodelujejo na področju naravovarstva.

- Vzgojno-izobraževalne aktivnosti
Organizirali smo več kot 250 predavanj, delavnic, naravoslovnih dni, ekskurzij, vodenih izletov, nagradnih ugank in kvizov ter podobnih aktivnosti.

- Priprava učnih pripomočkov
Pripravili smo učna gradiva in pripomočke za šolske in predšolske otroke ter učitelje.

- Poletni raziskovalni tabori
V Rakovem Škocjanu smo organizirali 3 poletne raziskovalne taborne, od katerih je bil v letu 2009 z mednarodno udeležbo. Udeleženci so spoznavali naravno in kulturno dediščino Notranjskega regijskega parka.



Sibirske perunike (*Iris sibirica*)

Information boards on the Lake Cerknica

Information boards at the entering points to the area of the Lake Cerknica (Dolenje Jezero and Gorenje Jezero) were put out. These boards inform visitors of the Lake Cerknica with the project LIFE.

Project leaflet

A project leaflet was published in 10.000 issues. It is meant for the popularization of the project and was delivered to schools, libraries, Municipality of Cerknica and other public institutions. Schoolchildren on excursions, research days and camps, workshops and lectures also received the leaflets.

A notice board in local shopping centre

Local public was informed about different events by posters on the notice board in the local shopping centre (Mercator) as well. 31 posters with notifications, invitations and information were made.

Bulletin

Wildlife of the area, the project itself and progress of the work were described in the bulletin Novice Notranjskega regijskega parka.

Website

Regularly updated website (<http://life.notranjski-park.si>) informed the people about the project.

The Lake Cerknica monograph

The monograph about Lake Cerknica presents the unique natural world of the area in pictures and in text. The other goal of the book is to present the project LIFE. Every household in the Municipality of Cerknica is meant to get a copy of the monograph free of charge. The book is also meant for schools and libraries in other parts of Slovenia, as well as for the project partners and other co-workers of the Notranjska Regional Park.

The 'Memory' game

This game is yet another way to present the animal and plant life of the area to the people. It is meant for children in the first place, but it can entertain and teach adults as well. The game is comprised of cards with pictures of threatened animal species that live in the area of Notranjska Regional Park and are protected under European laws.



Najmlajši obiskovalci jezera (The youngest visitors)

Action E2

WORK WITH YOUTH

As a future investment, one of the project team's goals was to meet all schoolchildren that live in Notranjska Regional Park and present them the project and actions within it.

The following activities within this action were carried out:

- Establishment of Nature protection network of schools and kindergartens of Notranjska Regional Park
Schools and kindergartens collaborating with Notranjska Regional Park on nature-conservation efforts.

- Educational activities
More than 250 educational activities like lectures, workshops, research days, excursions and riddles were carried out.

- Preparation of educational materials
Various educational materials (learning materials, educational worksheets and manuals for teachers, timetables, colouring pages for pre-schoolchildren, etc.) and didactic accessories (a didactic game for learning about the food chains and webs) were prepared.

- Summer research camps
3 summer research camps were carried out in Rakov Škocjan, one of them with international participation. The participants of the research camps were researching the area of Lake Cerknica and its surroundings.

Akcija E3

IZDELAVA SPLETNE STRANI

Na spletni strani <http://life.notranjski-park.si/> so širši javnosti predstavljene vse projektne aktivnosti ter dostopni projektni dokumenti, zloženke, bilteni, učni listi ter gradivo za učitelje. Spletno stran, ki je na voljo v slovenskem in angleškem jeziku, smo v času trajanja projekta redno dopolnjevali.

Akcija E4

TISK INFORMATIVNEGA BILTENA O POTEKU PROJEKTA IN VAROVANJU OKOLJA

V času trajanja projekta je izšlo 6 biltenov z naslovom Novice Notranjskega regijskega parka, ki so jih prejela vsa gospodinjstva v občini Cerknica, lokalna knjižnica, šole in vrtce naravovarstvene mreže šol in vrtcev, člani projektne sveta, pa tudi udeleženci predavanj in razstav. V biltenih smo opisno in slikovno predstavili rastlinstvo in živalstvo Cerkniškega jezera, posamezne naravovarstvene aktivnosti v sklopu projekta LIFE ter naravno in kulturno dediščino Notranjskega regijskega parka.



Izvir Otoškega Obrha (The source of Otoški Obrh stream)

Akcija E5

POTUJOČA RAZSTAVA O PRESIHajočem CERKNIŠKEM JEZERU IN PROJEKTU RENATURACIJE VODOTOKOV V SKLOPU LIFE PROJEKTA

Potujoča razstava z naslovom 'Cerkniško jezero – ogledalo sveta' je širši slovenski javnosti v sliki in besedi predstavila biotsko pestrost in geološko posebnost presihajočega Cerkniškega jezera. Podrobno so bili opisani tudi cilji projekta LIFE ter njegove aktivnosti. V času trajanja projekta je razstava gostovala po devetih slovenskih mestih.

Akcija E6

ZGOŠČENKA – NARAVNA BOGASTVA PRESIHajočEGA CERKNIŠKEGA JEZERA IN NJEGOVE OKOLICE

Izdelanih je bilo 5000 zgoščenk, namenjenih promociji projekta LIFE in dvigu naravovarstvene zavesti zlasti med mladimi. Na zgoščenkah je zbranih 350 digitalnih fotografij visoke ločljivosti, ki prikazujejo naravno in kulturno dediščino Cerkniškega jezera in njegove okolice. Zgoščenke so prejeli vsi učenci osnovnih šol Notranjskega regijskega parka.

Akcija E7

ŽEPNI VODNIK PO RASTLINSKEM SVETU CERKNIŠKEGA JEZERA IN OKOLICE

Vodnik je namenjen promociji varstva narave oziroma vsem, ki želijo bolje spoznati rastlinski svet Cerkniškega jezera in njegove bližnje okolice. V njem je predstavljenih 171 rastlinskih vrst, med katerimi so nekatere pogoste, druge pa redke, ogrožene ali kako drugače zanimive. Opisani so tudi cilji projekta in posamezne projektne aktivnosti, ki so pripomogle k varstvu narave na območju Cerkniškega jezera. Vodnik je natisnjen v 10000 izvodih, uporabljajo pa ga lahko tako naključni obiskovalci jezera kot tudi učitelji in učenci v okviru šolskih dejavnosti.

Action E3

WEBSITE OF THE PROJECT

Regularly updated website <http://life.notranjski-park.si> provides information about the project and project activities, prepared documents (leaflet, bulletins, educational materials...) and contacts.

Action E4

BULLETIN ON PROJECT ACTIVITIES AND ENVIRONMENT PROTECTION

6 issues of 'Novice Notranjskega regijskega parka' bulletin were published and delivered to all households in the Municipality of Cerknica, schools from the Nature protection network of schools of Notranjska Regional Park, libraries, participants of research camps and wider professional public. The bulletin presented the project LIFE and activities within it as well as natural heritage of the Lake Cerknica area.

Action E5

MOBILE EXHIBITION: THE INTERMITTENT LAKE CERKNICA AND THE PROJECT OF RESTORATION OF WATERCOURSES IN THE SCOPE OF LIFE PROJECT

The mobile exhibition 'Lake Cerknica – The mirror of the world' presented the biodiversity and geological importance of Lake Cerknica to wider Slovenian public. The project LIFE, its goals and activities within it were also presented. The mobile exhibition has been set up in nine different places in Slovenia.

Action E6

PROJECT CD – NATURAL RESOURCES OF THE INTERMITTENT LAKE CERKNICA AND ITS SURROUNDINGS

5000 CDs were prepared in order to promote the LIFE project and Lake Cerknica and to stimulate people, especially young, to collaborate and support the nature protection and conservation activities. There are 350 high-resolution digital photos that present natural and cultural heritage of Lake Cerknica and its surroundings. CDs were delivered to schoolchildren of the Nature protection network of schools of Notranjska Regional Park.

Action E7

POCKET GUIDE TO PLANTS OF THE INTERMITTENT LAKE CERKNICA

171 plant species that thrive in the area of Lake Cerknica and its surroundings and are characteristic, endangered or interesting in any other way are presented in this pocket-sized guide. It enables visitors of Lake Cerknica to get to know the plant species and learn about rich diversity of the area. Goals of the LIFE project and activities within which contributed to conservation of nature in the area are also included. Booklet was printed in 10000 copies and is available to all households in the Municipality of Cerknica, local schools and libraries free of charge.



Bela kljunka (Rhynchospora alba)

Akcija F1 VODENJE PROJEKTA

Projekt je koordiniral vodja projekta, ki je usklajeval delovne procese, zagotavljal časovno dinamiko projekta ter nadziral delo celotne projektne skupine. Učinkovitost vodenja se je izkazala skozi uspešno izvedene projektne aktivnosti, ki so bile finančno upravičene in izvedene ob načrtovanem času.

Akcija F2 MONITORING IN EVALVACIJA PROJEKTA

Ustanovljen je bil projektni svet, sestavljen iz predstavnikov projektne skupine, lokalne skupnosti ter projektnih partnerjev. Na rednih letnih sestankih sveta so njegovi člani ocenjevali napredek projekta po posameznih projektih aktivnostih.

Action F1 PROJECT MANAGEMENT

The project was coordinated by the project manager who coordinated the work processes, providing time dynamics of the project and oversaw the work of the entire project team. The effectiveness of the management was proved through project activities which were financially eligible and performed at the scheduled time.

Action F2 MONITORING AND EVALUATION OF THE PROJECT

The project a steering committee made up of representatives of the project team, local communities and project partners was established. The steering committee met at regular annual meetings at which council members assessed the progress of the project in terms of project activities.



Dujce (The Dujce fen)

5. POMEN IN SPOROČILNOST PROJEKTA

Potrditev projekta LIFE 06 NAT/SLO 000069 »Presihajoče Cerkniško jezero« s strani Evropske unije je še en dokaz o izjemnosti tega območja, ne le v slovenskem, ampak tudi v evropskem merilu. Sam projekt pa predstavlja velik korak k večji prepoznavnosti območja ter ozaveščenju lokalnega prebivalstva o pomenu in pomembnosti tega enkratnega dela sveta. Tako za pestro živalstvo in rastlinstvo Cerkniškega jezera ter jezero samo, kot tudi za nas in zanamce.

Poseben pomen v izvedenih projektih aktivnostih ima dober zgled občine Cerknica, ki je kot prva lokalna skupnost preizkusila in izvedla nakup kmetijskih zemljišč v trajne naravovarstvene namene.

V Notranjskem regijskem parku si prizadevamo zagotoviti, z naravnimi danostmi in vrednotami usklajen razvoj kmetijstva, gozdarstva, ribištva, turizma, rekreacije in izobraževanja ter ugodne materialne in druge pogoje za razvoj in življenje prebivalcev na območju Cerkniškega jezera. Torej za trajnostno rabo naravnih virov, življenje v sožitju z naravo in sobivanje z ostalimi prebivalci tega območja.

Projekt LIFE 06 NAT/SLO »Presihajoče Cerkniško jezero« je nedvomno prispeval k boljšemu sprejetju in razumevanju omrežja Natura 2000 ne le na lokalni, pač pa tudi na globalni ravni.

5. MEANING AND MESSAGE OF THE PROJECT

Confirmation and funding of the project LIFE 06/NAT/SI/000069 »Intermittent Lake Cerknica« by the European Union is yet another evidence of exceptionality of this area, not only for Slovenia but for Europe as well. The project represents an important step towards a greater recognition of the area and the education of the local inhabitants on the meaning and importance of this unique place and about the importance of natural and cultural heritage preservation not only for diverse animal and plant life of Lake Cerknica and the lake itself but also for the people and our descendants.

A special importance in the underwent project activities goes to Cerknica municipality. Being the first local community that tried and carried out the buying of farm land for permanent protection it gave a good example in the scope of nature protection.

In Notranjska Regional Park we are trying to assure an even development of agriculture, forestry, fishing, tourism, recreation and education in accordance with natural values. Furthermore we would like to assure favourable conditions for the development of the area and its inhabitants. We aim at sustainable use of natural resources, life in harmony with nature and other inhabitants of this area.

Project LIFE 06/NAT/SI/000069 »Intermittent Lake Cerknica« has undoubtedly contributed to better reception and understanding of the Natura 2000 network not only on local but on global level as well.



Pozno poletna košnja (Late-summer mowing)

Poročilo za širšo javnost smo izdelali v okviru projekta LIFE 06 NAT/SLO 000069 »PRESIHAJOČE CERKNIŠKO JEZERO«, ki ga je v večji meri financirala Evropska skupnost s pomočjo finančnega instrumenta LIFE – Narava.

Layman's Report was made in the scope of the project LIFE 06 NAT/SLO/000069 »Intermittent Lake Cerknica« funded in most part by the European Community through LIFE – Nature financial instrument.

TRAJANJE PROJEKTA (Duration of the Project): od 1.1.2007 do 31.12.2009

NOSILEC (Project holder):

Notranjski regijski park, Tabor 42, Cerknica, +386 05909 16 11
<http://life.notranjski-park.si>
e-mail: info@notranjski-park.si

SOFINANCERJI (Cofunding):

Ministrstvo za okolje in prostor RS (MOP)
Občina Cerknica

PARTNERJI (Project partners):

Biotehniška fakulteta, Oddelek za biologijo
Inženiring za vode d.o.o.

Skupna vrednost projekta je 1.840.584 evrov.

Total value of the project is 1.840.584 euros.

Pri projektu so sodelovali (In collaboration with):

Notranjski regijski park:

VODJA PROJEKTA:

Tanja Vasilevska

PROJEKTNA SKUPINA:

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