LAKE MILADA

International Landscape, Urban and Architectural Design Competition

Competition Brief

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LAKE MILADA

FOREWORD

This Competition Brief was created by a working group, operating under the guidance of the competition organizer, ONplan planning consultants, and Palivový kombinát Ústí representatives. The working group comprised of the council board members of the Statutory City of Ústí nad Labem, the cities of Chabařovice, Trmice, the municipality of Řehlovice, representatives of the Ústí Region and other invited experts on topics related to spatial development. Also involved in the preparation of the Competition Brief were representatives of associations and stakeholders, municipalities in the wider area, authorities, and other regional stakeholders. Public needs were identified, and a public consultation was held on the Competition Brief draft. The formulation of the shared vision for Lake Milada area, definition of competition scope and assignments and site information presented in this Competition Brief are thus the result of an inclusive collaborative process.

Why does PKÚ organize the Lake Milada competition?

Established in 1990, Palivový kombinát Ústí, state-owned enterprise (PKÚ, s. p.) is the legal successor of energy and raw material mining organizations in the Czech Republic. The organization's activities largely revolved around the mining, processing, and sale of lignite, as well as the accompanying raw materials.

In 1991, it was decided to gradually reduce the mining activities of this state-owned enterprise, as a result, the firm focused on the regeneration of the areas affected by mining activity.

At present, PKÚ's efforts to reverse the consequences of mining in the lignite basins area through redevelopment and reclamation. Additionally, the company participates in the comprehensive regeneration and re-socialisation of the landscape affected by mining.

PKÚ is also responsible for the site of the former Chabařovice surface mine which was in operation between 1977 and 1997. The Chabařovice quarry replaced six municipalities. The Government of the Czech Republic decided on an extensive hydrologic reclamation and in 2001 filling of the new Lake Milada begun. At the same time, reclamation work also continued in other areas of the former Chabařovice quarry. In 2015, the newly reclaimed Lake Milada area opened to the public.

The reclamation process, however, was not the end. It is now necessary to integrate this part of the region into the day-to-day lives of the residents of the surrounding municipalities and cities, as well as visitors who come here to rest and relax.

The task of PKÚ s. p. as the organizer of this large international competition, in cooperation with ONplan lab, s.r.o., is to find a solution that takes into account the interests and needs of all the target groups, so that this vast area will become an integral part of the lives of all future users of the area.

Ing. Walter Fiedler
Company Director

Why a competition is a suitable tool in finding a strategy for the development of the Lake Milada area?

The landscape between the towns of Teplice and Ústí nad Labem. A landscape that has undergone severe ordeal in recent decades. Originally a fertile, intensely populated agricultural landscape with deep mines and a predominantly German speaking population leaving the area after World War II. In the mid-twentieth century, the establishment of surface mines meant employment for thousands of people and coal mining with all the positive and negative impacts. At the same time the area has once and for all lost its cultural layer of the landscape. Villages were gone, people were gone and ties broke. At the end of the century, the cessation of mining activities meant job losses for many people and an explosion of social problems.

At the same time a new cultural landscape is taking shape. A huge amount of work has already been completed. As a result, the mine was reclaimed creating the new Milada Lake and surrounding area. The contracting authority, in cooperation with experts, is seeking to from a vision for a possible further development of the area by organizing an international landscape, urban and architectural design competition.

It is an appropriate and welcome way to search for a new stimulus, which is likely unique in the case of reclamation projects. The competition's assigned task is to support and consolidate the landscape regeneration process. Bring new stimuli into the spirit of the region's historical developments and its natural values.

Bring new ideas about how to make these already popular places even more attractive and interesting. Reinforce the relations with the original landscape and its historical, cultural and natural values. Stimulate the cultivation and development of good neighbourly relations and cross-border cooperation. To create yet again a beautiful piece of the world that could attract people from all over Europe as an example of a cultural landscape being renewed. Because the landscape is one and knows no boundaries.

Klára Salzmann
Chairwoman of the Competition Jury

A SHARED VISION FOR LAKE MILADA

Over the past few years connected with the transformation of the former Chabařovice quarry into Lake Milada, Palivový kombinát Ústí, s. p., as the administrator of the area of Lake Milada with the right to manage the majority of the state property located in this area, representatives of the local authorities of the Ústí Regional Authority, the towns of Ústí nad Labem, Chabařovice, Trmice, the municipalities of Ústí and Modlany and other towns and municipalities in the vicinity, representatives of professional and academic institutions, associations, interest groups and the public have been discussing at various occasions the future form of this extensive area.

A set of themes, which can be considered as shared values, and a widely shared vision of where Lake Milada and its vicinity should be heading, what it should look like, and how it should be used, were frequently repeated during these discussions.

1

Milada keeps its natural character

New activities in the area will not harm the water quality in Lake Milada, which is currently very high. Newly established vegetation in the landscape must be preserved and further developed. The extensive continuous natural areas, which will be accessible to inhabitants of the neighbouring settlements, will especially be protected.

Conditions for natural processes will be created in the artificial landscape to increase the biodiversity of the area and to increase the resistance of the landscape environmental changes.

2

Milada refers to the rich history of the region

The strong story of the whole area, which preceded the development of this location, must be acknowledged. The Lake Milada site will refer to the local inhabitants' fates, commemorate abandoned villages and transformation of the landscape. Visitors to the site will get details about the location's industrial history, area reclamation, and new landscape development.

The uniqueness of this area will be further developed; the area will maintain its spatial generosity and genius loci.

3

Milada connects

Milada will contribute to improving the quality of life of local residents and strengthen the Ústí area brand as a place for good living. Sustainable on-site development will contribute to the region's greater social cohesion.

Residents of surrounding cities and municipalities should once again recognize the Lake Milada site as their own and take responsibility for the future of this site at the same time.

4

Milada, a lake for everyone

The location of Lake Milada is remarkable for its scale and freedom of movement. This vast, natural public space is accessible from all directions at any time.

Future developments and activities in the area will always take place in ways that preserve unrestricted public access, particularly with a view to protecting and preserving the permeability of the lake's banks.

5

Milada becomes an organic part of the region

Milada should not remain an isolated natural landscape between two cities (Ústí nad Labem and Teplice) surrounded by linear transport infrastructure.

The Lake Milada site needs to be better connected with its surroundings. It should be incorporated into the wider region, the new landscape of the North Bohemian Basin, a popular and easily accessible place on the boundary between the Ore Mountains (Krušné hory, Erzgebirge) and the Central Bohemian Highlands (České středohoří).

6

Milada offers a diverse quality programme

The Lake Milada location will provide a variety of ways to spend free time appealing to all age groups, residents and visitors throughout the day and night, seven days a week and throughout the year. A mix of activities will ensure that the economy is resistant to cyclical fluctuations and structural changes.

Site amenities will be designed in a 'smart' way to allow for the use in all seasons, at a minimal impact to the environment. Proposed land uses and buildings shall not create barriers, the site shall maintain its natural character.

7

Milada will be an exemple of good practice in sustainable development

The area's progressive transition should be focused on principles of sustainable development in tourism sector, energy conservation, and in the protection of natural values. Innovative technologies and methods will be used and tested in the area that will provide a sustainable and self-sufficient approach with minimal environmental impact.

Milada will be an inspiration for transforming the whole Most Basin into a healthy and prosperous region.

8

Milada, water as a resource

Water on site will be preserved as one of the components and strategic resource of the newly created landscape. Management of the site at Lake Milada will contribute to stability of water management in the region.

9

Milada's future will result from a feasable and economically sustainable solution

Development of the Lake Milada site will be based on a realistic and financially feasible solution. This requirement is not intended to limit innovative and ambitious concepts. We want to build on realistic assumptions so that the development of the area brings new opportunities to young generations without burdening them with life in debt and the previous generation's ill-considered decisions.

It is necessary to find the optimum model that will enable effective implementation of intentions, administration of the area, and long-term economic sustainability.

10

Milada as a public interest

Lake Milada's shared vision is intended to contribute to the fulfilment of the public interest in maintaining and improving the environmental conditions and usability of the newly created landscape for the region 's inhabitants to enhance the quality of their lives and for the region's sustainable development.

The possibility of an adequate reduction of the protected deposit area will be evaluated on the basis of that public interest.

Competition assignment

THE COMPETITION AREA

Apart from the competition site, which mostly corresponds with the land administered by PKÚ, s. p., an area of interest as well as a wider area have been roughly defined.

Competition site

Lake Milada in respect to local context

The competition site primarily includes land administered by PKÚ, the Chabařovice steel mill, and connected land owned by the town of Chabařovice. Aside from land ownership, the area is also defined by a terrain depression that creates space with a certain level of intimacy despite the proximity of nearby settlements. The competition site defined in this way is minimal. It is possible if the contestants find this useful to extend the site.

Area of interest

Lake Milada in respect to microregional context

The area of interest is roughly demarcated to the edges of the neighbouring settlements – Ústí nad Labem, Chabařovice, Modlany, Věšťany, Suché, Řehlovice and Trmice. These boundaries represent the minimal microregional context. If the contestants consider it useful to address the microregional context of Lake Milada to a larger extent, it is possible. Settlements included in the area of interest will not form a direct part of the competition site, but the relationship between the Lake Milada site and those settlements needs to be addressed intensively.

Wider area

Lake Milada in relation to the regional context

Lake Milada is situated between the large cities of Ústí nad Labem and Teplice, on the boundary between the Ore Mountains and the Central Bohemian Highlands. It is part of the North Bohemian Brown Coal Basin (also called the Most basin). It is located near the North-West Prague-Berlin corridor (D8 motorway, railway) of pan-European importance, and the Elbe River with the Elbe transregional bike route. The area is close to a planned new station of the Prague-Berlin high-speed railway.

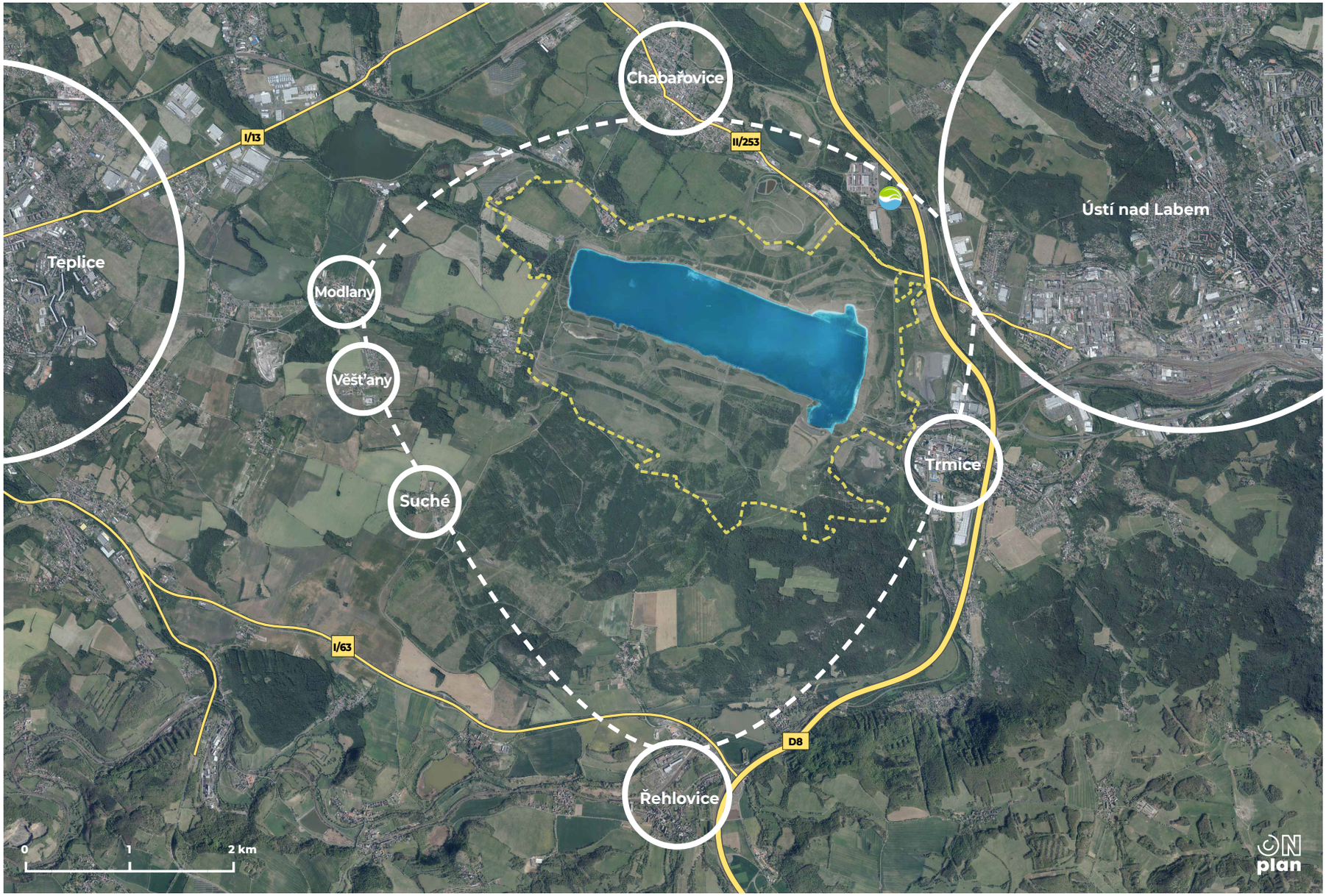


Diagram of the competition site and the area of interest

competition site area of interest seat of PKÚ, s. p.

SCOPE OF THE COMPETITION

Development strategy of the area

The area of the former Chabařovice mine is now largely state-owned, operated by Palivový kombinát Ústí. The original intent was to pass the area after the reclamation ended to the administration of the surrounding cities and municipalities. However this is not permitted by the current legislation. It is therefore necessary to look for the area's optimal property arrangement model, the incremental implementation model, multi-source financing, as well as the area's future administration.

When developing the concept of the area, consideration must be given to the region's current economic situation. Currently, low income from real estate investments impedes the construction of new housing projects or development of public amenities.

Assignment

- Propose a solution for the organization of the entire competition site that will enable permanently sustainable funding of its administration and maintenance.
- Propose the optimum phasing of gradual implementation of the area's spatial concept that you have designed. Define required investments for the area (e.g. technical infrastructure, investments to ensure safety and security of visitors) that need to be implemented to allow for the construction of individual investors' projects.
- Prepare estimated budget of implementation and future management of these required projects (facilities) and calculate estimated income from the operation of these facilities.
- In relation to your spatial concept, design the optimum model (alternatives are possible) of implementation, future administration and operation of the area. Decide on future ownership arrangement, key area investments and administration of the area. Design an institutional solution and financing of the administration and upkeep of the area.
- Due to the current economic situation of the region and the low investment activity, suggest possible temporary uses for tranformation or newly developable areas.

The history of the place

Historically the region has undergone numerous rapid changes. Owing to the establishment of extensive surface mines, the originally fertile, densely populated agricultural landscape with several underground mines effectively ceased to exist in the middle of 20th century. Many villages were abandoned, which severed landscape linkages, as well as the ties of former inhabitants to the area. At the end of the century the mining stopped causing many social problems. Now, the region has been given back to the natural environment and to the people, creating new ties.

Assignment

- Base your proposal on the identity and the genius loci of the location. Try to preserve the inherent roughness of the area and not deny what the new landscape originated from.
- Develop a way to preserve and remember the location's rich history.
- Engage with the last remaining industrial monuments in the area such as the Chabařovice steel mill buildings, the Trmice heating plant and the railway siding remains.

COMPETITION ASSIGNMENT

Nature and landscape

The area of the former Chabařovice quarry was reclaimed in 2001, primarily utilising hydrological, forestry and agricultural reclamation. Aside from the lake itself, new landscape with forest lands, smaller bodies of water and wetlands, permanent grasslands, as well as agricultural areas were created. The reclaimed area was ceremonially opened to the public in 2015. Several valuable near-natural biotopes emerged over time.

Assignment

- Assess the current state of the environment and suggest possible recommendations for its target state and management.
- Propose measures, possibly also of a technical nature, to create conditions for natural processes in the artificial landscape to increase the biodiversity of the area and to mitigate impacts of climate change.
- Define vast continuous areas of natural character that will not be used for more intense forms of recreation, but will remain accessible to people, and will be used for environmental education.
- Establish principles for work with landscape features in the areas you designate as buildable or for redevelopment for sport, recreation, housing or public amenities to ensure the natural character of the area is maintained. When defining these areas, remember to maintain the permeability of the area for both humans as well as other living organisms.

Redevelopment or newly buildable areas for housing and services

Brown coal mining resulted in the destruction of a significant part of the Most basin landscape. Concurrent with the environmental damage, the region saw an exodus of residents, changing the demographic nature of a once (relatively) densely populated area. Today, as the area of the former Chabařovice quarry is being returned to the nature, it is also necessary to create a sustainable model for reintroducing people into the reinvigorated environment. Construction must not, however, contribute to urban sprawl or further increase already existing residential segregation. The public facilities of Lake Milada should not compete with the amenities of the surrounding communities, on the contrary, they should complement them and serve as much as possible to the tourists to the lake as to the local residents.

The current unused and neglected built-up areas such as brownfields need to be given priority for development. This is particularly the unused Chabařovice steel mill located in the vicinity of Lake Milada, which is part of Chabařovice town's plan to build the so-called Nové Vyklice, which is to restore a community that was destroyed by mining.

Assignment

- In your vision, define buildable or redevelopment areas for housing and public amenities so that they contribute to the increased life quality of the inhabitants of the neighbouring settlements and increase of the recreational potential of the area. In case you define areas for housing and public amenities of a different kind than for sport and recreation in Redevelopment area ASA9 as delineated in the Development principles of the Ústí nad Labem region, state arguments for your decision.
- In the concept plan, also address the basic spatial layout including land uses of the areas that were explored in your vision. Teams are expected to primarily place housing and services in Chabařovice steel mill and on the neighbouring property.

Recreation, sport and tourism

Since the beginning of the preparation of the reclamation, Lake Milada has been intended to be a recreational area for the inhabitants of the neighbouring cities and municipalities. This intention is stipulated in the Territorial development principles of the Ústí nad Labem region, where the former Chabařovice mine is designated as Asanační území 9 (Reclamation area 9, hereinafter ASA9). The first significant aspect for resolving spatial planning tasks listed here is the need of transregional and suburban recreation of the Ústí nad Labem – Teplice urban area.

The Lake Milada area is already in use by residents of neighbouring communities and partly equipped for leisure activities. The beaches are open to public, road loops are used for hiking, surfing and in-line skating. Projects for a marina are being planned as well as piers to allow access to water, eco-piers and water rescue facilities.

The following table shows selected key activities and projects that should help increase the recreational potential of the area. These projects were identified based on available studies and analyses of tourism development potential and on discussions with the key stakeholders. Existing projects and projects being prepared are also included in the table (**marked in bold** in the text).

Assignment

- In your vision, define buildable or redevelopment areas for sport and recreation, placement of amenities and operation of activities for suburban recreation and sport in the extent of the activities and standard projects according to the following table.
- In the concept, also address the basic functional and spatial layout of the areas whose placement into the area was examined in the vision.

Note: The list of activities and projects shown in the table are recommendations. Additional activities may be suggested to increase the area's recreational potential. Likewise, some of the projects listed may be disregarded if considered inappropriate for the area.

Table of key activities and projects

activities	key projects	other selected projects	networks projects
water attractions, summer relaxation	• **main beach** with support facilities and attractions for a wide spectrum of visitors • camp with a guesthouse, restaurant, and beach • **marina** – the main facility for boat transport, other additional visitor boats, amenities and services • a rental boats network, pedalos and other sport equipment	• well-equipped beaches • **water access, resting piers** • smaller gastronomy establishments • water attractions of both an adrenaline and more peaceful nature	• **system of tracks for cyclists and inline skaters** • barrier-free water access, facilities enabling the use of Milada Lake for citizens with reduced mobility and orientation • construction of hiking trail atractions (destinations), resting sites • navigation system • connection of the lake to Ústí nad Labem • a network of recreational sports grounds and playgrounds • nature educational trails for public use and school trips • facilities for the water rescue services • facilities for area management • note: Fishing on the lake is banned and it is not expected to be permitted.
a varied range of activities for families with children		• emission-free recreational lake cruises • sightseeing trackless train mainly intended for families with children • water attractions for children • network of playgrounds • facilities for non-demanding bicycle rides or inline skating	
year-round sport	• accommodation suitable for both sports seekers and conference-goers • multi-purpose centre for both sport and cultural use in summer and winter • non-commercial community centre suitable for neighbouring settlements' community activities	• outdoor and indoor sports grounds • **possibility to use bodies of water for water sports** – mainly wind-based sports - windsurfing, kiting, etc., but also others • outdoor sports facilities to hold regular or one-time mass sport events • a suitable site for a diving school • high-performance and top - level sports camp facilities including accommodation options in multiple price categories	
sports camps at the lake		• high-performance and top - level sports camp facilities including accommodation options in multiple price categories	

Transport services in the area

Cars are not allowed to drive to the banks of the lake. They can be parked in 4 parking sites, which are also the main entrances to the area. There are currently three circuits for pedestrians and cyclists built around the lake. They are partially connected to the neighbouring settlements, however, there is practically no connection to Ústí nad Labem and Teplice. Public transport services in the area are not very satisfactory.

Assignment

- Plan measures to improve transport services at Lake Milada based on the principle of sustainable mobility. Primarily support environmentally sustainable forms of transport with minimal noise and pollution.
- Develop measures to improve accessibility by public transport to the Lake Milada area, focus on the optimum placement of stops and their pedestrian links to the lake.
- Consider using the remains of the former railway Ústí nad Labem-Teplice-Chomutov and the former railway sidings to improve accessibility from Ústí nad Labem and Teplice to Lake Milada.
- Propose principles to connect and supplement the existing cycling and pedestrian routes in the area with an emphasis on connection to the neighbouring settlements and important locations in the vicinity, primarily Ústí nad Labem and Teplice.
- As part of the wider site context, design the framework of a road network of trans-regional importance cyclists and pedestrians, which will connect to the Ore Mountains, Central Bohemian Highlands, Bohemian Switzerland and the Elbe cycling route.
- As part of the area's transport services for individual car transport, use the respective connections to the area via the existing entrances, or propose the optimisation of their connection to the parent road network. If it is justified in your proposed concept of the area, design new transport connections to Lake Milada.
- Propose car parking solutions, primarily by optimising the existing parking areas at the main entrances into the area concerning their varying use during the year and the income and costs associated with their operation.

Technical infrastructure

The area around Lake Milada is not yet equipped with the basic technical infrastructure. Nevertheless, PKÚ is currently building a backbone power line network, a sewerage system, and water supply. It will be necessary to gradually equip the entire area with technical infrastructure, in accordance with the new concept plan.

PKÚ has developed a variant verification study on the location of a pumped hydroelectric energy storage (PHES) in the Lake Milada area, based on government authorisation. Possible project design of one of the versions has not yet been determined. However, this project must be considered in the competition entries.

Assignment

- In your concept, consider technologies that use least harmful methods of power generation and effective power-saving methods. Build upon the implemented project of technical infrastructure in the area.
- Design a basic principle for water supply and sewerage. Take into consideration the technical infrastructure projects underway in the area.
- In general, consider innovative technologies and approaches that will offer a sustainable and self-sufficient solution with minimal negative impact on the environment.
- Take into account in your proposal the proposed variants of pumped hydroelectrical energy storage (PHES) facility.

Public spaces

Most of the area surrounding Lake Milada, be it the road network, grasslands, forests or the banks of the lake, is accessible to the public. The entire area is public space. Maintaining the maximum possible permeability of the area is one of the core requirements defined in the shared vision of the area.

In the future, the area should be provided with a road network, street furniture, navigation and information system and other objects of landscape and urban design. While maintaining the natural character of the area, buildings and other structures will be built around the lake, mainly to provide facilities for sport, recreation, and to increase the user comfort of the area. From the start on, it is necessary to introduce rules for public spaces and urban design, landscaping and architectural design of buildings, which will improve and maintain high quality of public spaces and the built environment at large.

Assignment

- Propose key principles of public space design around Lake Milada, which should be part of the future design code of the area.

Architectural, landscape, artistic and other interventions in the area

The Contracting Authority is considering setting up a model for gradual integration of quality architectural, landscape, artistic and other interventions in the area.

These should:

- resolve specific problems or develop existing values that were defined by key stakeholders of the area and the public, or are related to the above mentioned topics of the competition assignment,
- strengthen the brand of the area,
- be the crystallisation core of the transformation of a specific location, draw attention to hidden, yet undiscovered, or forgotten secluded places within the landscape to become destinations for Lake Milada visitors,
- set a high standard for later architectural and urban design interventions in the area,
- be funded from multiple sources and can be the subject of individual architectural or artistic competitions.

Assignment

- Propose a network of sites suitable for the placement of these architectural, landscape, artistic and other interventions.
- Design in detail one initial intervention.

ASSIGNMENT IN DETAIL

Assignment in the 1st phase

In the 1st phase, the competing teams shall primarily focuse on the area of interest. Settlements of the area of interest are not part of the competition site, however, it is necessary to address the interaction of the area around Lake Milada with these settlements intensively.

In the 1st phase, the competing teams shall submit:

- spatial vision and development strategy of the area of interest,
- integration of the vision of the area of interest into the broader context,
- detailed design of the spatial and functional organization of two areas within the competition site – a part of the eastern bank of the lake and another part of the competition site selected by the competing team, the emphasis should be on the landscape design of these areas,
- concept of one architectural, landscaping, artistic or other intervention in the area of interest.

Competition entries in the 1st phase of the competition should demonstrate the basic principles of the solutions of individual topics of the assignment (see Scope of the Competition). At the same time, teams should fulfil the principles of the Shared Vision of the Lake Milada area, respect the values and limitations of the area and the principles of sustainable regional development.

Assignment in the 2nd phase

In the 2nd phase, the competing teams will primarily deal with the competition site.

In the 2nd phase, the competing teams shall submit:

- a spatial concept of the competition site defining functional (land-use zoning) and spatial organisation of the site,
- a development strategy of the competition site, including phasing of proposed development,
- integration of the spatial concept of the competition site into the broader context of the area of interest,
- a more detailed functional and spatial urban design solution of specific buildable areas (their selection will be specified in the invitation to the 2nd phase of the competition),
- the concept for placement of architectural (artistic, landscaping) interventions in the area and detailed design of one specific intervention,
- a proposal of key principles of public space design around Lake Milada, which should be part of the future design code of the area.

Competition entries in the 2nd phase of the competition should present conceptual solutions addressing individual topics of the assignment (see Scope of the Competition). They should also contribute to the implementation of the Shared Vision of the Lake Milada area, they must respect the values and limitations of the area and principles of sustainable regional development.

Abstract of the Competition Terms

COMPETITION JURY

Regular members – dependent

Petr Kubiš

Deputy Director of Palivový kombinát Ústí, s. p.

Graduated from the University of Agriculture in Prague, majoring in agriculture operation and economics. After a previous experience in the banking sector, he has worked since 2007 as the deputy director of operations for the state-owned company Palivový kombinát Ústí, s. p., as a responsible for property management and operations.

Tomáš Kupec

Deputy mayor of Trmice

Electrical engineer by trade. He has been working in the electrical engineering field for over 20 years. He is the Trmice town councillor since 2010 and its deputy mayor since 2018.

Martin Klika

First Deputy Governor of the Ústí Region

Completed special pedagogy studies. He has been a member of the municipal government since 2008, a member of the town council since 2012, and the first deputy governor of the Ústí Region with competencies in the area of finance, strategy and project preparation since 2016.

Pavlína Janiková

Head of Department of Mining and of Environmental Damage Elimination, Ministry of Industry and Trade of the Czech Republic

Graduated from the Technical University of Ostrava, Faculty of Economics, and earned her doctoral degree at the Faculty of Mining and Geology. Since 1999, she has been working at the Ministry of Industry and Trade of the Czech Republic, currently in the Mining Department, as Head of the Mining and Environmental Damage Elimination Department. She is actively involved in the Interoceanmetal Joint Organization and is a member of the PKÚ, s. p. Supervisory Board.

Regular members – independent

Klára Salzmann

Landscape Architect

Graduated from Corvinus University in Budapest and earned her doctoral degree from the Slovak University of Agriculture in Nitra. In addition to her designing experience focused on landscape planning with public involvement, she currently leads the Salzmann Atelier at the Faculty of Architecture at the Czech Technical University in Prague, which focuses on large-scale landscape projects. She is a member of the Landscape Architecture Working Group at the Czech Chamber of Architects (ČKA). She is also a member of the Professional Practice Working Group at IFLA Europe, and the head of the Landscape Working Group at the Government Council for Sustainable Development.

Jan Magasaník

architect

Graduated from the Faculty of Arts and Architecture at the Technical University in Liberec. He completed internships at the Academy of Fine Arts in Prague and the Academy of Arts, Architecture and Design in Prague during his studies. Since 2006, he has been working in the progressive studio of the Bjarke Ingels Group (BIG) in Copenhagen. Here, he has participated in projects including the Danish pavilion at EXPO 2010 in Shanghai, the Museum of Modern Art in Warsaw, the MECA Cultural Centre in Bordeaux, France, the Danish Maritime Museum in Helsingør and social housing in Ørestad, Copenhagen.

Filip Tittl

Architect, Urban Planner

Graduated from the Faculty of Architecture of the Czech Technical University in Prague and at the Eindhoven University of Technology in the Netherlands. In 2012, he co-founded the UNIT Architects studio, where he has primarily managed urban projects. In addition to his practice, he is also engaged in research and pedagogical activities, cooperates with the Faculty of Architecture of the Czech Technical University in Prague, and leads research projects at the Housing Quality Centre organisation. He also deals with construction legislation, cooperates with the Institute of Planning and Development of the Capital City of Prague. He published several books within an author collective, including Michal Kohout and David Tichý, about sustainable forms of individual development.

Jitka Trevisan

Landscape Architect

Graduated in garden and landscape architecture at the Faculty of Horticulture of the University of Agriculture in Brno, she completed her postgraduate studies at the Hochschule für Technik Rapperswil in Switzerland. After 15 years of study and professional experience in Switzerland and 6 years of university activities, she founded an author's studio in Prague. Her work is interdisciplinary and cross-border. When addressing landscape projects of all types and scales, she starts from the context and the genesis of the place. She provides consultations, lectures, and also publishes, translates and works on land art.

Ondřej Špaček

strategic planning specialist in the sports and tourism field

Graduated in social-economic geography and regional development, demography studies at Charles University in Prague. For 28 years, he has been preparing comprehensively conceived studies devoted to data analysis and synthesis, as well as the preparation of development concepts, strategies and action plans in the field of regional development, tourism, sports, culture and leisure activities. He has also applied his knowledge, for example, to the preparation of a comprehensive set of general methodologies, which now efficiently help the effective development of destination management throughout the Czech Republic.

Substitutes – dependent

Jan Vondruška

Head of Construction Implementation Department, Palivový kombinát Ústí, s. p.

Graduated in business law at the University of Finance and Administration, he is currently completing a master's degree in security law. After his previous exeprience as a construction manager and technician, primarily ensuring implementation of railway constructions, he has been working in PKÚ, s. p. since 2011 as the head of the Construction Implementation Department.

Josef Kusebauch

Mayor of Chabařovice

Graduated from a school of education, taught at the primary school in Chabařovice for 8 years and was its principal for 14 years. At the same time, he has been involved in local politics for 18 years. He has been the Chabařovice Deputy Mayor for 8 years and the Mayor for 10 years. He is one of the founders of the Voluntary Association of the Lake Milada Municipalities. From his position in the Chabařovice governing body, he actively supports the implementation of the Nové Vyklice project.

Petr Nedvědický

Mayor of the Statutory City of Ústí nad Labem

Graduated in economics and andragogy. He has been the Mayor of Ústí nad Labem since 2018, a representative of the Ústí nad Labem Region since 2016 and, among other things, is a member of the Commission for the Development of Tourism.

Jana Princová

Mayor of Řehlovice

Mayor of Řehlovice since 2018. Before entering politics, she worked for almost 20 years at the City of Ústí nad Labem Municipal Council as a curator for children and youth.

Ondřej Beneš

Architect and Urban Planner

Graduated in architecture at the Faculty of Architecture of the Czech Technical University in Prague. In addition to his private practice, he has been working as an assistant at the Faculty of Architecture of the Czech Technical University in the Stempel – Beneš studio since 2006. Since then, he has collaborated with Dr. Oldřich Ševčík on theoretical texts and publishes in professional journals. He is a member of the Commission for Heritage of the second half of the 20th century at the National Heritage Institute. Since 2017, he has been a city architect in Děčín, and since 2019, he is the head of the "Regional Architect" Working Group of the Ústí Region.

Vladimír Šanda

Head of the Department of Mining Processes and the Use of Mineral Resources, Ministry of Industry and Trade of the Czech Republic

Graduated from the University of Mining in Ostrava, Faculty of Mining and Geology. Since 1988, he has held various positions at Českomoravské doly, a.s. Since 2002, he has been working at the Ministry of Industry and Trade of the Czech Republic, currently as the head of the Department of Mining Processes and the Use of Mineral Resources. He is a member of the PKÚ, s. p. Supervisory Board.

Substitutes – independent

Roman Bukáček

Landscape Assessment and Protection Specialist

Studied landscape design, surveying and applied informatics. In his practice, he specialises in landscape design and protection, in adaptation and development of landscape use, in the creation of materials for town and country planning, in consulting in connection with nature and landscape protection and the environment, and in processing of environmental information, GIS. He is the co-author of several publications and methodologies, especially in the field of landscape protection and assessment.

Milota Sidorová

Urban Planner

Earned her doctoral degree in landscape architecture and completed domestic and foreign internships focusing on sociological research, human resources and urbanism. In 2013-2014, she completed a Fulbright scholarship at The City University of New York. She focuses on urban development in interdisciplinary contexts, is an expert on public spaces, participation and connection of various urban life actors, and is gradually beginning to focus on the political aspects of planning. In 2015, she established the WPS Prague platform that supports the fair representation of women in architecture and urban development. As a consultant, she cooperates with many domestic and foreign partners including IPR Prague, the Heinrich Böll Foundation, the Goethe-Institut, Marko & Placemakers and the Green Foundation.

Miroslav Janovský

Territorial Investments Integration Specialist

Started as a journalist. He spent seven years as a senior sports editor at the Czech Radio, has been editor-in-chief of Mladá fronta for two years, and subsequently worked as the press spokesperson for the Mayor of Pardubice. At the same time, he managed important investment projects financed from European funds, including the largest investment project in the history of the city of Pardubice – the Dukla sportovní Project. His main task in recent years has been to promote integrated territorial investment instruments at the national level and, at the same time, its implementation in the Hradec-Pardubice agglomeration. He is currently the head of development of the Pardubice region.

Competition organiser

Karolína Koupalová

Competition Secretary

Studied garden and landscape design at MUAF, Faculty of Horticulture in Lednice in Moravia. For a long time, she worked as an urban architect at the chief architect department in Pardubice, specialising in urban greenery and landscape, later leading this department. From this position, she introduced methods for involving the public in the planning of public spaces within the city. Based on many years of experience, she specialises in the coordination and analysis of conceptual, strategic and town and country planning documents for cities and municipalities, their communication with the public and their application in specific development projects.

Petr Návrat

Competition Proposals Examiner

Studied urban planning at the Bartlett School of Planning, University College London, and economics at the University of Economics in Prague. In 2014, he founded ONplan planning consultancy, which provides extensive strategies and services in the areas of regeneration and urban development and strategic planning. From 2013-2016 he worked at the Institute of Planning and Development of the City of Prague, as first in charge of the economic part of the Prague Strategic Plan. He later worked as deputy director, introducing methods for involving the public in the planning processes of the city of Prague.

COMPETITION SCHEDULE

For more details, see Section 13 of the Competition Terms.

The dates of the competition's 1st and 2nd phases are tentative, and they shall be specified in the invitation to selected teams to submit proposals in the competition's 1st and 2nd phases. Should the dates be postponed, the minimum of three months period for the preparation of entries in the competition's 1st and 2nd phases shall be maintained.

8 June 2020	competition announcement
by 31 July 2020	**submission of applications with reference project portfolios**
August 2020	first jury meeting – the selection of 6 competition teams who will be invited to submit their proposals in the competition's 1st phase
September 2020	commented tour of the competition site
September – November 2020	opportunity to ask questions regarding the competition until 5 October, questions regarding the scope of the competition and the assignment until 12 November, questions regarding organisational matters
by 30 November 2020	**submission of proposals in the competition's 1st phase**
December 2020	second jury meeting – the selection of 3 proposals that will pass to the competition's 2nd phase
January – March 2021	opportunity to ask questions regarding the competition until 2 October, questions regarding the scope of the competition and the assignment until 8 March, questions regarding organisational matters
by 26 March 2021	**submission of proposals in the competition's 2nd phase**
April 2021	third jury meeting – the jury shall select the competition winner
May – July 2021	negotiation procedure without publication with the competition winner/winners on the conclusion of a contract for the processing of subsequent contracts

TERMS OF THE COMPETITION

Competition type

The competition is announced as a limited two-phase landscape, urban and architectural design project.

Competition language

The competition is announced and shall be conducted in Czech and English.

The competition application, including the reference works portfolio, and all the parts of the competition proposal in the competition's 1st and 2nd phases, shall be produced in Czech and in English.

Awards and expense reimbursements

Total for awards and expense reimbursements		CZK 3,875,000
Expense reimbursement in the competition's 1st phase per team		CZK 175,000
Awards in the competition's 2nd phase	**1st place**	CZK 1,250,000
	2nd place	CZK 950,000
	3rd place	CZK 625,000

Competition team composition requirements

For more details, see Section 5 of the Competition Terms.

The participant must prove that there is at least one person in the competition team:

- with authorisation in the field of landscape architecture,
- with authorisation in the field of spatial planning,
- with authorisation in the field of architecture.

Due to the scope of the competition, we recommend expanding the competition team with experts in the following fields:

- strategic planning and local economic development,
- transport planning,
- sociology, social geography, or related fields,
- hydrology, water management,
- environmental impact assessment, landscape character assessment, area biological assessment, etc.

Competition applications

For more details, see Section 6 of the Competition Terms.

The following documents shall be submitted electronically via E-ZAK, the contracting authority's electronic tool:

- statutory declaration using the PF2 template,
- statutory declaration using the PF3 template + simple copies of authorisation documents (per requirements stipulated in Section 5.2 of the Competition Terms), university degrees, and a structured curriculum vitae proving the achieved work experience (according to the recommendations stipulated in Section 5.3 of the Competition Terms),
- reference project portfolio.

Portfolio of reference projects

Portfolio of reference projects shall include:

- at least 2 reference projects (commissioned) of high urban and landscape design quality, which are related to the scope of the competition and are, as recommended, of minimum 5 km^2 area,
- at least 2 projects (commissioned) of high architectural, landscape and artistic quality, which are related to the scope of the competition.

For every project, the basic information, brief proposal annotation, professional approach to the project description and how such professional approach was applied in the competition proposal preparation or in the processing of any subsequent competition contracts must be provided.

Submission in the 1st phase

For more details, see Section 8 of the Competition Terms.

The following documents must be submitted electronically via E-ZAK, the Contracting Authority's electronic tool:

- textual component of the proposal,
- graphical component of the proposal in digital form,
- statutory declaration using the PF2 and PF3 templates.

The following documents must be submitted in hard copy form to the competition organiser's address:

- graphical component of the proposal – panels,
- sealed "Contact details" envelope with a completed statutory declaration using the PF1 template.

Graphical component of the proposal

The proposal shall consist of 2-4 panels of A0 format made of light material for exhibition purposes, on which the following items shall be obligatorily presented:

<table>
<tr><td>1st panel</td><td colspan="2">spatial vision of area of interest at the scale of 1:10 000 including defined land uses

any additional images</td></tr>
<tr><td rowspan="5">other panels</td><td colspan="2">diagrams, sketches, descriptions of design principles for individual assignment topics, including the strategic vision of the area of interest development</td></tr>
<tr><td colspan="2">diagram of the area of interest vision's broader context</td></tr>
<tr><td rowspan="2">detailed design of the spatial and functional organization of two areas within the competition site with an emphasis on landscape design</td><td>proposal of a part of the lake's eastern shore with an emphasis on landscape design.</td></tr>
<tr><td>proposal of another part of the competition site per the competition participant's choice with emphasis on the landscape design</td></tr>
<tr><td colspan="2">vision of one architectural intervention</td></tr>
<tr><td colspan="2">Panels can contain any other expression clarifying the proposal.</td></tr>
</table>

Textual component of the proposal

Up to 60 pages of A3 text, which shall contain the following sections:

- brief proposal annotation,
- description of the area of interest spatial vision and development strategy,
- description of the area of interest vision's broader context,
- description of detailed design of the spatial and functional organization of two areas within the competition site with an emphasis on landscape design,
- description of the vision of one architectural, landscape, artistic or other intervention,
- proposal of a structured professional approach to the solution of individual parts of the subsequent contract, including the pricing proposal for the processing of individual subsequent contracts.

The text part can contain graphical expressions of the proposal from the competition panels or other supplemental drawings, diagrams, etc.

Submission in the 2nd phase

For more details, see Section 9 of the Competition Terms.

The following documents must be submitted electronically via E-ZAK, the Contracting Authority's electronic tool:

- textual component of the proposal,
- graphical component of the proposal in digital form,
- statutory declaration in accordance with the PF2 and PF3 templates.

The following documents must be submitted in hard copy to the competition organiser's address:

- graphical component of the proposal – panels,
- sealed "Contact details" envelope with a completed statutory declaration in accordance with the PF1 template.

Requirements for the competition proposal contents in the competition's 2nd phase shall be specified to selected teams in the invitation to participate in the competition's 2nd phase.

Binding requirements for competition proposals

The competition proposal binding requirements for both the competition phases include:

- proposal content requirements (Sections 8 and 9 of the Competition Terms)
- proposal content anonymity requirements (Section 10.3 of the Competition Terms)
- submission of proposals within the required deadline (Section 13.7.3 and Section 13.12.3 of the Competition Terms)

Site information

HISTORY

History of Lake Milada surroundings

The area around Lake Milada, as well as the entire North Bohemian Basin (also called Most Basin), underwent rapid changes, especially in the 19th and 20th centuries. What was originally densely populated farmland began to transform at the end of the 18th century into a prosperous mining and industrial area with numerous underground mines, industrial enterprises, and transport structures. World War II ended the regions period of growth and prosperity, which caused, among other things, a radical two-fold population change. Consequently, the region saw a significant reduction in the population.

In the 1970s, the Chabařovice surface mine was established between Ústí nad Labem and Chabařovice. It gradually covered almost 9 km2 of landscape and 6 municipalities. After twenty-four years quarry mining came to an end. The comprehensive reclamation that turned the landscape into something completely new, with Lake Milada opening up and bringing in residents to begin the process of reinhabiting and reorienting themselves in an unfamiliar place.

The rapid changes of the landscape between Ústí nad Labem and Chabařovice may be observed through historical maps and old aerial photographs, which can be studied at: http://oldmaps.geolab.cz/, http://lms.cuzk.cz/, https://geoportal.gov.cz, http://www.archivnimapy.cuzk.cz/

Two of the vanished municipalities, Tuchomyšl (above)and Vyklice (bellow),
source: Ústí nad Labem Municipal Museum, Collection of photographs and postcards, F1997


GASTHAUS ZUR ALSTRA

Pre-mining period – densely populated agricultural landscape

Favourable geological conditions in the prehistoric period led to the colonization of the area.

12th and 13th centuries

The first written mention of Chabařovice dates to the 12th century, while the origins of the Vyklice, Tuchomyšl, Otovice, Lochočice, Hrbovice and Zalužany municipalities (which lay in the area of today's lake), can be traced to the 13th century.

12th to 18th centuries

Until the 18th century, inhabitants primarily earned their living through agriculture primarily growing grain and wine.

In the 16th and 17th centuries, the region underwent its first of several ethnic changes, when the mixed Czech-German municipalities became almost exclusively German.

1426

The area was significantly affected by the famous battle of the Hussites against the crusade from Saxony and Meissen. The horrors on the Na Běhání Battlefield were eloquently reflected by the local name "bloody pit," used until the 20th century. This place is located on the north-eastern tip of Lake Milada.

1618 až 1648

Several Thirty Years' War crusades passed through the surroundings and plunged the region into a crisis for a lengthy period.

1796

The beginning of the underground mining development may be dated after 1796, when blacksmith Michel Nitsch from Trmice began mining in the area between Předlice and the current Trmice heating plant.

Map of the second military mapping showing the settlement and the landscape around today's Lake Milada in the second half of the 18th century, source: https://geoportal.gov.cz


Sobochleben.
Senseln.
Böhmisch Neudörfl
Obere Vorstadt.
KARBITZ.
Untere Vorstadt.
Striesowitz.
Schöbritz.
Striesowitz B.
Herbitz
Wiklitz.
Modlan
Raudnig.
Bihana B.
Schönfeld
Prödlitz.
Weschen B.
Suchey.
Lochtschitz.
TÜRMITZ.
Augiesel.
Kosten.
Jedowin B.
Schichlitz.
Nechwalitz.
Habrzi.

Period of the mining and industry development

19th century

The discovery of rich coal beds at the turn of the 18th and 19th centuries and the gradual development of mining made the area the centre of lignite mining and heavy industry in the second half of the 19th century. It was mined intensively through multiple small mining works, and proper underground mines were gradually established on mines under the administration of capital-strong companies. The mining was gradually followed by the construction of some industrial enterprises and new transport structures. The network of railway constructions was gradually expanded. At the turn of the 19th and 20th centuries, Ústí became a port whose output exceeded the only Austro-Hungarian Trieste seaport in the Adriatic Sea.

There is a significant increase in the number of inhabitants in the surrounding municipalities; in Ústí nad Labem more than ten-fold.

The originally agricultural landscape gradually began to change.

In the area of interest of today's Lake Milada, larger underground mines gradually emerged including Doblhoff, Barbora, Julie, Neuhoffnung (New Hope) and Petri, Albert, Marie Antonie and Felix Waldemar, which was both an underground and surface mine, among numerous other mines.

1813

The battle of Austrian, Russian and Prussian troops against Napoleon's French army took place near Chlumec. It resulted in the largest mass grave in the Czech Republic with the remains of 10,000 fallen soldiers. The grave is located only three kilometres away from the lake's shore.

1856

A chemical factory was established in Ústí nad Labem – Spolek pro chemickou a hutní výrobu v Ústí nad Labem, which was not only the largest company of its kind in the monarchy but is still in operation today.

The factory-built its coal supply cable railway and utilised it in the opposite direction for waste removal. Near the mines, a giant chemical landfill was built at the end of the 19th century. It was only rehabilitated in the early 21st century.

1858

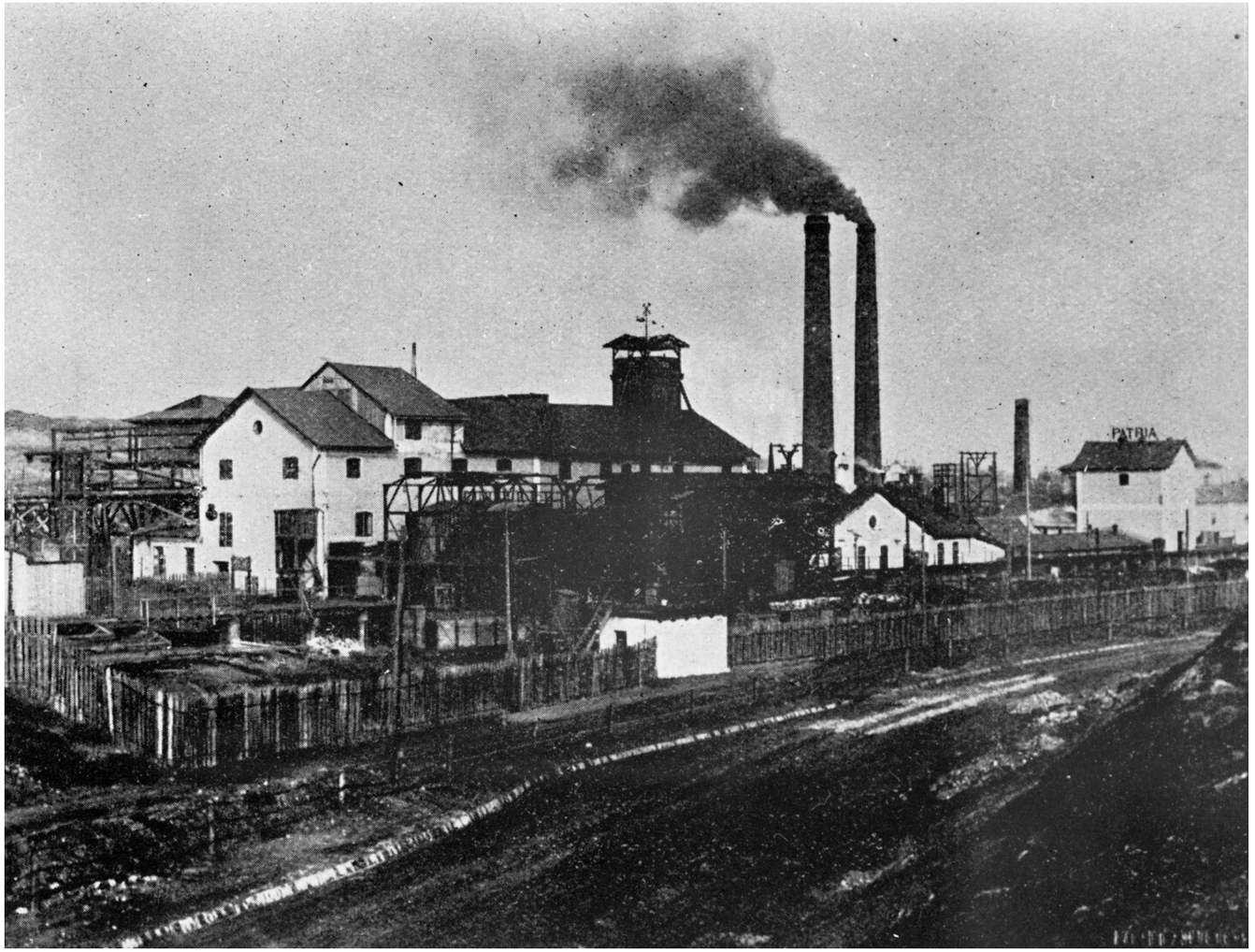
The so-called coal railway was built, which, followed-up on the Prague – Dresden railway (completed in 1851) and connected Ústí nad Labem and Teplice. The remnants of the railway, interrupted by the Chabařovice surface quarry in the 20th century, are still in the area.

1869

The Milada I Mine was established near the Chabařovice railway station, to which it was connected by its own siding.

1884

The Milada II Mine was established in Chabařovice. It also featured its own industrial siding and reached a depth of 105 metres.



Steel plant – Chabařovice foundry, 1910,
source: Ústí nad Labem Municipal Museum, Collection of photographs and postcards, F11242.

1894

Between Chabařovice and Vyklice, in the immediate vicinity of the mines, a steel plant – foundry for mining equipment production was built. It still stands near Chabařovice.

1st half of the 20th century

Ústí nad Labem and its surroundings gradually became centre of mining of the highest quality lignite in the Austrian Monarchy and a place, where a set of other industries inducing steal making, chemical industry, energy and food production rapidly developed.

From the beginning, however, coal mining also had a negative impact on the environment and the lives of people living in the vicinity. This impact increased with the mining intensity. Disorganised mining was detrimental to agricultural land, and the local unprofessional mining was also very inefficient and low in profitability. The undermined land would collapse, turning into water-flooded bodies. Also common at the time were piles of topsoil and mullock, as well as smoke and burning soot from frequent mine fires.

Mining was further responsible for another change in the region's ethnic composition. The language groups began to mix again, however, this time it was during the period of national awareness of both Czechs and Germans. As a result, mutual tensions already deepened at the time of the Czechoslovak First Republic, which then dramatically culminated during World War II.

The period of growth and prosperity was ended by World War II.

1914 through 1916

Construction of the Trmice Power Plant, which belonged among the largest power plants of the Austro-Hungarian Empire. Some of the original buildings still stand in today's Trmice heating plant.

1938 through 1945

The coal prosperity of the locals, albeit causing an environmental burden, was fundamentally disrupted by World War II. It caused other fundamental changes in the ethnic composition. After the creation of the Protectorate, some of the Czechs from the surrounding municipalities fled from the Nazis, and the Jewish population was murdered. After the war's end, the majority of the German population was expelled. Resultantly, the surrounding municipalities gradually lost most of their original inhabitants and, therefore, the historical continuity was fundamentally disrupted.

After 1945

Despite the government managed re-settlement of the depopulated region by the Czechs, Slovaks, Volhynian Czechs, Roma, Hungarians and other nationalities, The population level of the pre-war period was never matched. In the wider vicinity, some municipalities completely disappeared.

City of Trmice, pit Elizabeth, 1900,
source: Ústí nad Labem Municipal Museum, Collection of photographs and postcards, F13006.


NORDDEUTSCHE-ELEKTRIZITÄTSWERKE-A.G.
ELISABETH-SCHACHT
13006

Intensive surface mining period

The second half of the 20th century brought a fundamental and rapid change to the area between Ústí nad Labem and Teplice.

Between the two towns, the Chabařovice surface quarry gradually grew from the 1970s, eventually eliminating 6 municipalities and a large part of the landscape.

Mining in the Chabařovice quarry ended after 24 years, and the region anticipated its next fundamental shift.

1946 through 1970

After World War II, the lignite mines were nationalised. After a decline in underground mining in the 1960s, surface lignite mining gradually began to gain ground in this area due to the favourable geological conditions.

1972

In 1972, a building ban was declared for all the municipalities that stood in the way of the planned mining in Chabařovice quarry.

The main impulse for building the Chabařovice surface mine was the provision of high-quality coal for the Úžín compressed gas works and for Trmice heating plant.

1977 through 1991

The mining activities of the Chabařovice quarry began in 1977. The quarry gradually occupied Zalužany, Tuchomyšl, Lochočice, Vyklice and Otovice. Hrbovice was the last municipality to disappear in 1989. A large part of the landscape between Ústí nad Labem and Chabařovice, and approximately 500 buildings including several larger farms, the Church of St. Martin in Tuchomyšl, the Church of St. Laurent in Hrbovice, the square baroque chapel in Vyklice, and also a railway line and the ”bloody pit” gradually disappeared. Regional links were broken. Previously connected settlements on the quarry edges were separated. The state of the environment deteriorated in the surroundings, especially due to increasing levels of dust, noise, and air emissions.

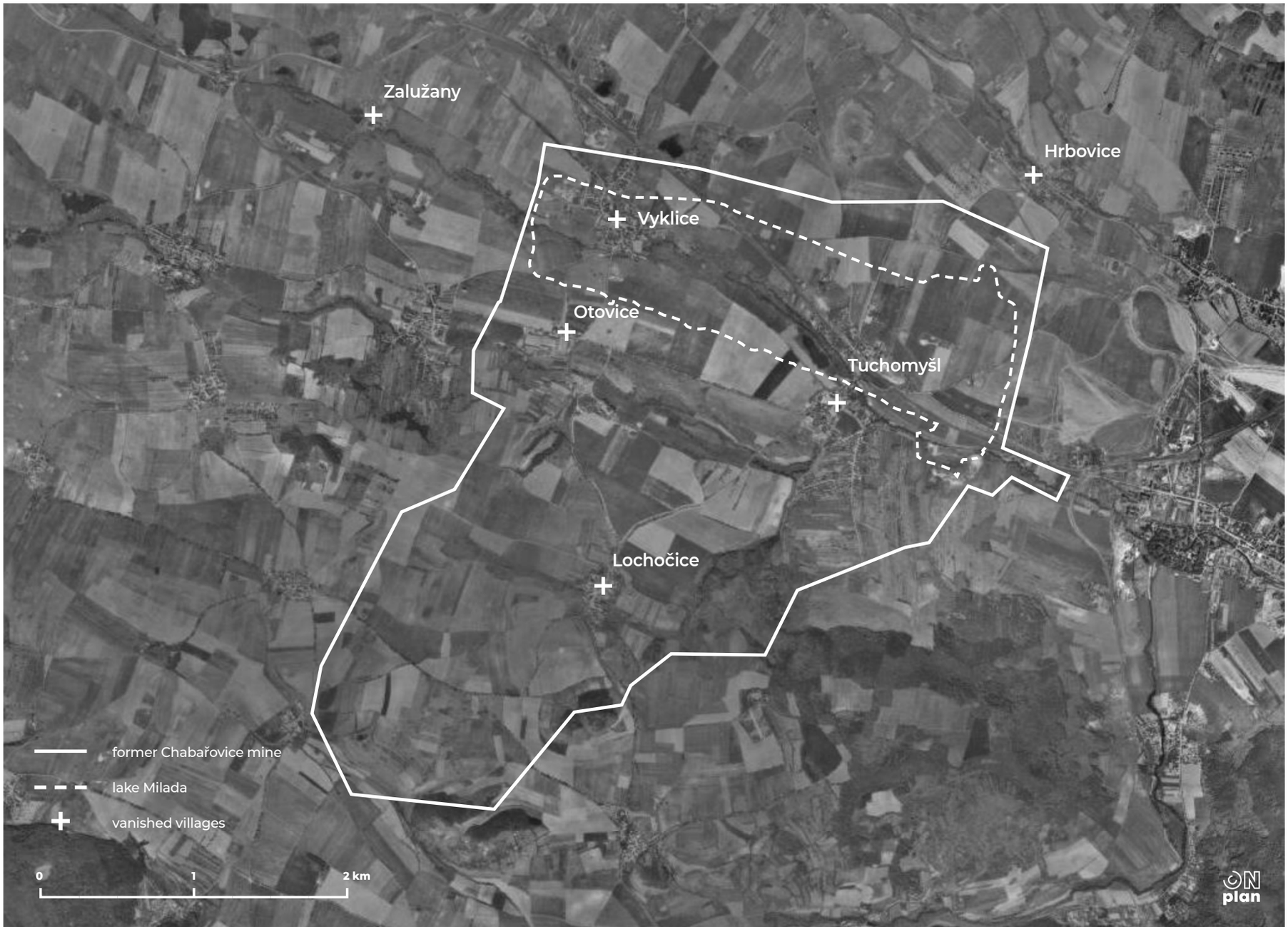
1991 to 2000

In 1991, it was decided by government decree to close the Chabařovice quarry. In 1993, a technical project of land restoration accompanied by a social programme was approved. The run-down itself began in 1994. All coal mining, processing and sales definitively ended in 1997.

In 1999, a reclamation plan based on the hydrologic method for residual pit of the Chabařovice quarry was approved.

The aim was to make the rehabilitated and reclaimed area accessible to the public, and enabling it to be fully used for recreation.

Aerial photograph from the 1950’s with a projection of the former Chabařovice mine, source: https://geoportal.gov.cz/


Zalužany
Hrbovice
Vyklice
Otovice
Tuchomyšl
Lochočice
former Chabařovice mine
lake Milada
vanished villages
0
1
2 km
ON plan

Post-mining period

21th century

The beginning of the 21st century is marked by the creation of a new landscape area between Ústí nad Labem and Teplice, the centre of which is Lake Milada. The residents of the surrounding towns and municipalities are gradually becoming used to the new landscape.

2001 until today

The flooding of the residual pit began in 2001 and ended in 2010. This was followed by the reclamation of adjoining areas. The area around Lake Milada was ceremoniously opened to the public on 30 May 2015.

Orthophoto of the current site with a projection of Lake Milada and the former Chabařovice mine, source: https://geoportal.gov.cz/


Zalužany
Hrbovice
Vyklice
Otovice
Tuchomyšl
Lochočice
former Chabařovice mine
lake Milada
vanished villages
0
1
2 km
ON plan

History of the Chabařovice mine transformation into Lake Milada

From the beginning of its operation in 1977, the mining process of the Chabařovice quarry had been structured from south to north, after which the face line turned westward and consequently afflicting Chabařovice. With an average annual production of approximately 5 million tons of coal, mining in this area was assumed to be safeguarded until the end of 2016. However, mining in the Chabařovice quarry was prematurely terminated by a government resolution in 1991 and both the town of Chabařovice and the adjacent steel plant were preserved. During the entire period of the Chabařovice mining activity, 61 million tonnes of coal was mined and 262 million m3 of soil were extracted.

Since its establishment, the Chabařovice surface mine struggled with a lack of dumpsites. The subsoil of the coal stratum with a large incline at the outcrop did not allow for the immediate establishment of internal dumps on the already excavated parts of the quarry. For this reason, the Lochočice dump, where the soil was deposited as early as 1968, was used. In 1989, due to its state of emergency, the stacker moved to the area of the Žichlická dump, which was used until 1995. The internal dump operation was terminated in 2000 by backfilling the residual pit's bottom.

In 1993, the Chabařovice I decomission project and social programme was established. In 1994, the actual abolition of mining activities came into force through a state budget subsidy. In April 1997, all coal mining, processing, and sales ended. The premature termination of Chabařovice's mining activity in 1991 caused the quarry's residual pit being a location with unfavourable technological and hydrogeological conditions. Consequently, the internal dump could not be established according to the original plans, where the body of the dump was also to function as a stabilisation mechanism concerning overburdened slopes. For these reasons, it was necessary to implement extensive remediation measures before starting the actual reclamation.

In 1999 (updated in July 2004), the General reclamation plan was approved, according to which redevelopment and reclamation works had been carried out in the former Chabařovice lignite quarry area since 1992. The basis for the area transformation rested in the hydrologic reclamation method, i.e., flooding of the Chabařovice quarry's residual pit with water. The reclamation works in the area adjacent to the newly emerging lake included the implementation of the necessary landscaping, which also incorporated quarry dumps in the surrounding landscape, construction of drainage ditches and access roads and biological reclamation that is divided into forestry, agriculture and others. The landscaping aimed to level the surface, remove drainage-free localities, adjust the slopes to the incline needed for afforestation and shape the dump. The creation of a forest road network ensured trouble-free access for maintenance and treatment of vegetation in individual areas. Drainage was carried out by building drainage ditches leading to the lake. After landscaping, including drainage and strengthening of the road network, biological reclamation started.

In 2015, reclamation was carried out on a total area of more than 870 ha. In connection with the gradual completion of the comprehensive revitalisation of the Chabařovice quarry area, PKÚ, s. p. entered into negotiations with the Voluntary Association of the Lake Milada Municipalities, which was founded in 2006 and associates the towns of Ústí nad Labem, Chabařovice, Trmice and the Řehlovice municipality. The Association of the Lake Milada Municipalities focuses on the preparation of projects aimed at building infrastructure for tourism, developing recreation and tourism in the revitalised area, protecting nature and the environment and at activities leading toward the development of the entire area of interest around Lake Milada. In cooperation with the Voluntary Association of the Lake Milada Municipalities, a visitor's rules and access regime were prepared for the Lake Milada area. On 30 May 2015, the Milada Weekend took place – the ceremonial opening of the Lake Milada area to the public.

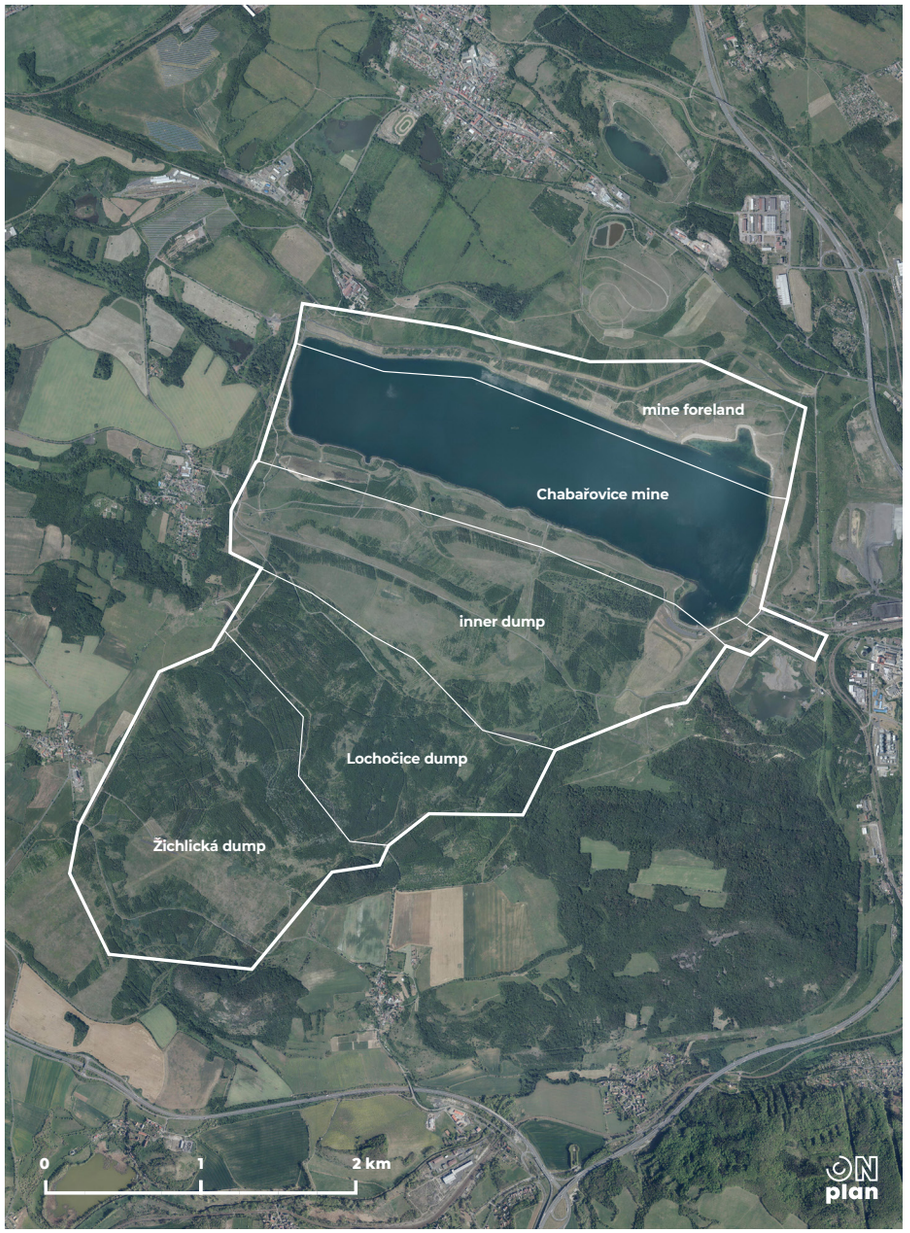
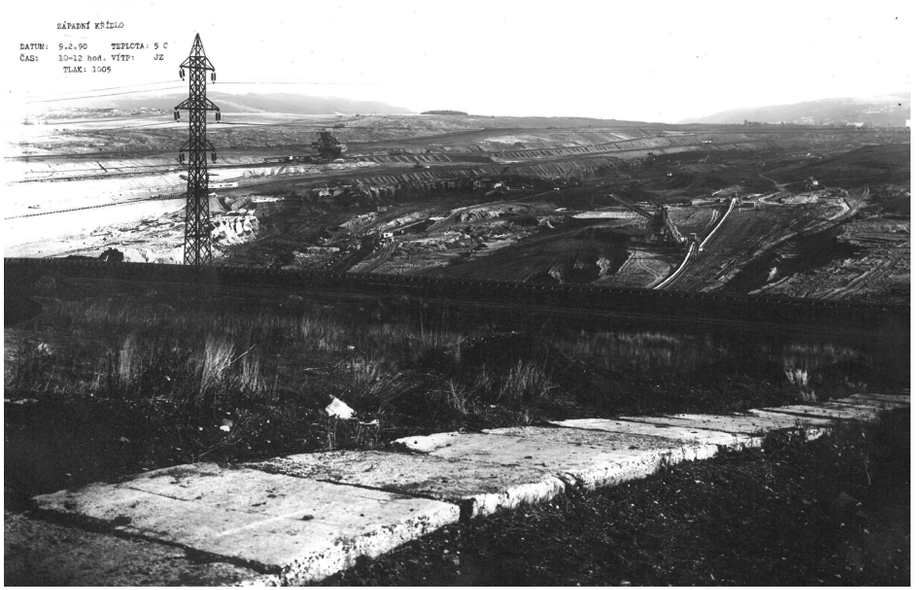


Diagram of the Chabařovice mine projected on a orthophoto of the current site

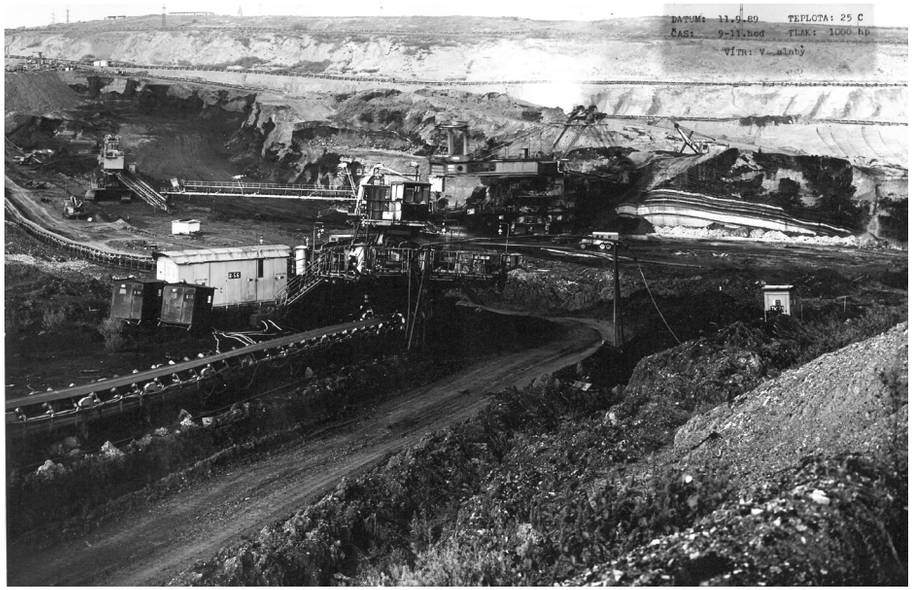
General view of the Chabařovice mine after the end of the mining activities, Retractable wheel excavator KU 300 mining a coal seam, author: Ing. Stanislav Štýs

SITE INFORMATION



Transformation of the Chabařovice mine into Lake Milada, view from north to west, source: PKÚ, s. p. photo archive

Transformation of the Chabařovice mine into Lake Milada, view from east to north, source: PKÚ, s. p. photo archive



Transformation of the Chabařovice quarry into Lake Milada, view from the north to the west, source: PKÚ, s. p. photo archive

Mining ending in the Chabařovice mine, source: PKÚ, s. p. photo archive Miladatlon, author: Jitka Oslejová

Preserved heritage from the pre-mining period

Near Lake Milada, outside the boundaries of the original Chabařovice quarry, some historical monuments from the pre-mining period have been preserved. This primarily concerns the Chabařovice heritage zone with the Church of the Nativity of the Virgin Mary, the Chapel of St. Michael, and St. John the Baptist, several historically valuable houses on the square, and other small monuments. This includes the monument to the battle of Na Běhání, which originally stood in the defunct Hrbovice municipality.

The nature trail that leads from Chabařovice alongside the cemetery and steel plant to Lake Milada is a historical path that used to lead from Chabařovice to the Vyklice railway station, where express train connections used to stop.

Near Chabařovice, there are also two bodies of water: the flooded remains of the Friedrich and Petri quarries. The dominant feature of the area's south-western part is the Church of St. Wenceslas in Roudníky. An interesting proof of history is the torso of the pilgrimage chapel of the Nativity of St. John the Baptist on the Jedovina Hill, to which the road from Lochočice originally led. The Lake Milada area of interest also includes the Stadice municipality, which is associated with the legend in which Přemysl the Ploughman was summoned to the Czech throne from a nearby field by Princess Libuše.

Practically no heritage landmarks of obsolete municipalities have been preserved. The Hrbovice municipality is an exception. It disappeared in 1989, however, the municipality area was not excavated and the municipality's historical footprint is preserved through the real estate cadastre. Remains of gardens and orchards are still preserved in the municipality cadastre. Several heritage objects from disappeared municipalities were saved. They include, for example, the Ecce Homo statue and a stone cross originally from Vyklice, which today stands next to the Church of St. Havel in Chlumec, or the Reconciliation Cross, which used to stand in front of the chapel in Hrbovice and today stands on the Zubrnice village square.

Trmice castle with industrial buildings in the background, source: PKÚ, s. p. photo archive

Trmice Château

In the south-east, the Trmice Château complex and park neighbours the Trmice heating plant, with the Bílina River separating the park from the plant. The château was built in 1856-1863 in the Neo-Gothic Tudor style by the Nosticzs family. In 1919, the château was bought by the Ústí industrialist, Carl Friedrich Wolfrum, who later sold it to the city of Ústí nad Labem. In 1994 the château interiors were renovated. Now it serves as an exquisite cultural centre with a ceremony hall and a marble concert hall. A permanent exhibition of regional industry history is installed in several chambers, including a permanent exhibition of railway models. The château is still owned by the Statutory City of Ústí nad Labem that leases it to the town of Trmice. The château park is owned by the town of Trmice.

Trmice Chateau with the historic buildings in the Trmice heating plant, the efficiently planed system of roads connecting Trmice with Milada and the remnants of the Ústí nad Labem – Teplice – Chomutov railway, creates an exceptional area where all the stages of the region's modern history are interwoven. In the future, this area may represent a major access point for Lake Milada, as well as an eastern gateway into the entire North Bohemian Basin region.

Preserved industrial heritage

Preserved industrial heritage forms a separate chapter in the place history. Industrial heritage sites include in particular the Chabařovice steel plant that is part of the competition site, as well as remains of the coal railway extending into the site and the historic core of the Trmice heating plant that is directly adjacent to the area. There is no other evidence of mining history in the area. At present, the above-mentioned industrial monuments are partially unused and can represent an opportunity within the Milada development. None of these sites are protected under the heritage act.

Chabařovice steel plant

The steel plant was built in 1894 in the vicinity of the Ústí nad Labem – Teplice – Chomutov railway, near the Vyklice station. It initially produced mining truck gears and other spare parts for the surrounding quarries. The steel plant subsequently experienced periods of growth, as well as crises, and changed its production program from war materials during both World Wars, (when it successfully manufactured butchery machines) back to producing spare parts for the mining, metallurgical, chemical and foundry industries. In addition to technological changes, the steel plant also endured changing owners and employees caused by two wars, the expulsion of the German population, and the February 1948 coup. With the steady expansion of the Chabařovice quarry, the steel plant anticipated it's removal. However, in 1989, together with the decision to stop mining,

Chabařovice steelworks, source: PKÚ, s. p. photo archive

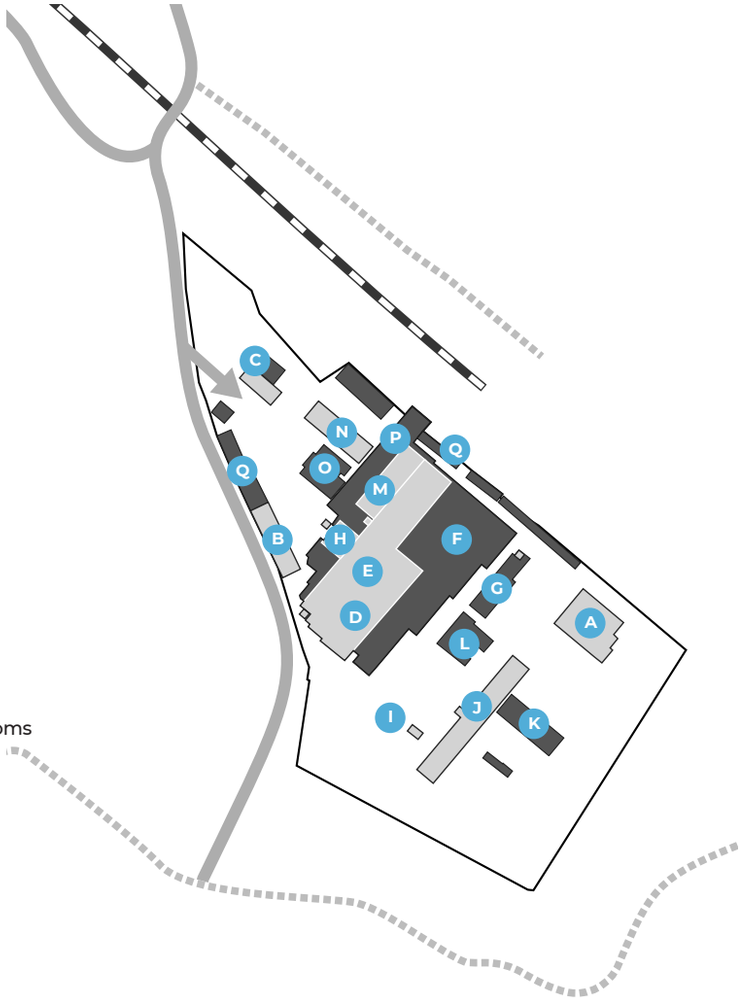
there was a turnaround and the steel plant received new investment and resumed its operations. Nevertheless, the operation of the plant, at that time called Severočeská armaturka, was terminated in 2009. Today, the plant is subject to insolvency proceedings and is only used to a small extent. Transfer to a new owner will probably take place soon. The complex is connected to land owned by the town of Chabařovice, which is part of the "Nové Vyklice" project (see Investment Plans section).

Buildings that are part of the historic complex retain at least some piece of their original industrial character. Several of the steel plant buildings, especially from later periods, are more of a temporary nature and have no significant historical value. In the future, it will be necessary to carry out a building-historical survey, which shall identify facilities suitable for conservation, restoration, and new use. The steel plant, especially the large halls, brickwork, and three chimneys, are a dominant feature of the north-western part of the Lake Milada site. Connections to transportation and technical infrastructure (water, sewerage and power distribution) present an enormous value for the former plant site.

In 2011, Ateliér Charvát, s. r. o., produced the Chabařovice steel plant brief, which also includes a basic inventory of the steel plant buildings and a selection of those buildings or their parts that, according to the authors, are suitable for conversion. This material was used to prepare the presented diagram.

Current state of the Chabařovice steelworks

- **A** three-nave hall
- **B** carpentry workshop
- **C** water reservoir
- **D** arched hall
- **E** long hall
- **F** arched hall extensions
- **G** boiler room, electricity transformer
- **H** chimney, gallery and related fitting
- **I** electricity transformer
- **J** underground shelter
- **K** prefabricated hall
- **L** technical facilities
- **M** long hall extensions
- **N** administrative building
- **O** administrative building, changing rooms
- **P** crane track
- **Q** garages and extensions
- remains of a railway
- buildings selected for conversion



Coal track

In 1856, the k. k. privilegierte Aussig-Teplitzer Eisenbahn- und Bergbau-Gesellschaft (ATE) joint-stock company was founded to build a railway between Ústí nad Labem and Teplice. Construction began in 1856 and was completed in early 1858. In 1871, the railway was double tracked. Reception railway station buildings were built in Teplice, Bohosudov, Chabařovice, Trmice and Ústí nad Labem, and stops in Proboštov and Tuchomyšl. The railway, which soon became one of the busiest in the whole of Austria-Hungary, primarily provided freight, but also passenger transport. In addition to the main railway line, the company built a network of sidings connecting the surrounding lignite quarries to the main railway line and the Elbe port in Ústí. The railway, together with coal mining and industry development, had thus become a driving force for the development of individual municipalities, as well as the entire region. In 1923, ATE was nationalised. The railway network was gradually supplemented by sidings with the 1,000 mm track gauge of the Ústí nad Labem trams (these were in operation until 1964), a cableway from the area of today's chemical waste landfill to Spolchemie and a mining railway with a track gauge of 900 mm (disappeared in the 1970s).

Operation on the Trmice – Bohosudov segment was terminated in 1982 when the track was transferred to a new railway due to the expansion of the Chabařovice quarry, which bypassed the quarry north of Chabařovice.

From the original track, a short skeleton, which ends less than 200 m from the eastern shore of Lake Milada, remains in Trmice. Today, this historical track remnant is part of the functional PKP Cargo siding. In the direction from Teplice, the remnants of the original track lead from the Bohosudov station to the former Chabařovice transport station. From this part of the track, the siding turns in front of Chabařovice to the premises of Strabag.

Remains of the coal track near Trmice and Chabařovice steelworks, source: PKÚ, s. p. photo archive

Trmice heating plant

The former Trmice power plant, currently the Trmice heating plant, is in the eastern part of the area of interest, between Lake Milada and Trmice. It was built in 1914-1916. Today, an extra-wide road, owned by the town of Trmice, leads alongside the heating plant towards Milada and constitutes the south-east access point to the site.

Increasing electricity demand in the developing industrial area of Northern Bohemia, together with the presence of high-quality lignite, a water source and a railway line, gave impetus to the construction of the Trmice power plant. The Trmice power plant gradually became one of the largest power plants of the then Austro-Hungarian Empire. Since its establishment, the power plant has undergone several modernisation interventions, building modifications, original equipment demolitions and new technology implementations. In addition to technological and construction changes, the steel plant also underwent a change of owners and employees caused by two wars, expulsion of the German population and the February 1948 coup.

Since 1959, the Trmice power plant had also become a heat supplier for Ústí nad Labem. In May 1976, the Trmice power plant terminated the until then predominant power production and was transformed into the Trmice heating plant with the predominant heat production. Today, the Trmice heating plant, which has been a part of ČEZ, a.s. since 2013, is fully functional and supplies heat to approximately 27,000 customers, including several companies and organisations in the Ústí nad Labem region.

In the future, further modernisation of operations shall continue, more substantial technological changes can be anticipated; however, termination of operations is not expected. Just as today, the Trmice heating plant will remain a neighbour of Lake Milada, and the heating plant chimneys will continue to complement the iconic view of Lake Milada from the west.

source: PKÚ, s. p. photo archive

Several historical buildings from the World War I period are preserved on the plant site, and are partially used today. This concerns the engine room, original boiler room and adjacent facilities. The owner plans to preserve them, however, as of now he has no plans for their further use in the future.

The heating plant operation also includes the “5. květen” stabiliser storage facility and the Barbora sludge pond (for slag floating). The operation of the original power plant and today’s heating plant is also related to the system of railway sidings connected to the railway stations in Ústí nad Labem and Trmice, through which the power plant was and still is supplied with coal.

Diagam of heritage sites around Lake Milada

1 Chabařovice heritage zone

2 Na Běhání battle memorial

3 historical path to the Vyklice railway station, today educational trail

4 flooded Petri mine

5 flooded Friedrich mine

6 Church of St. Wenceslas in Roudníky

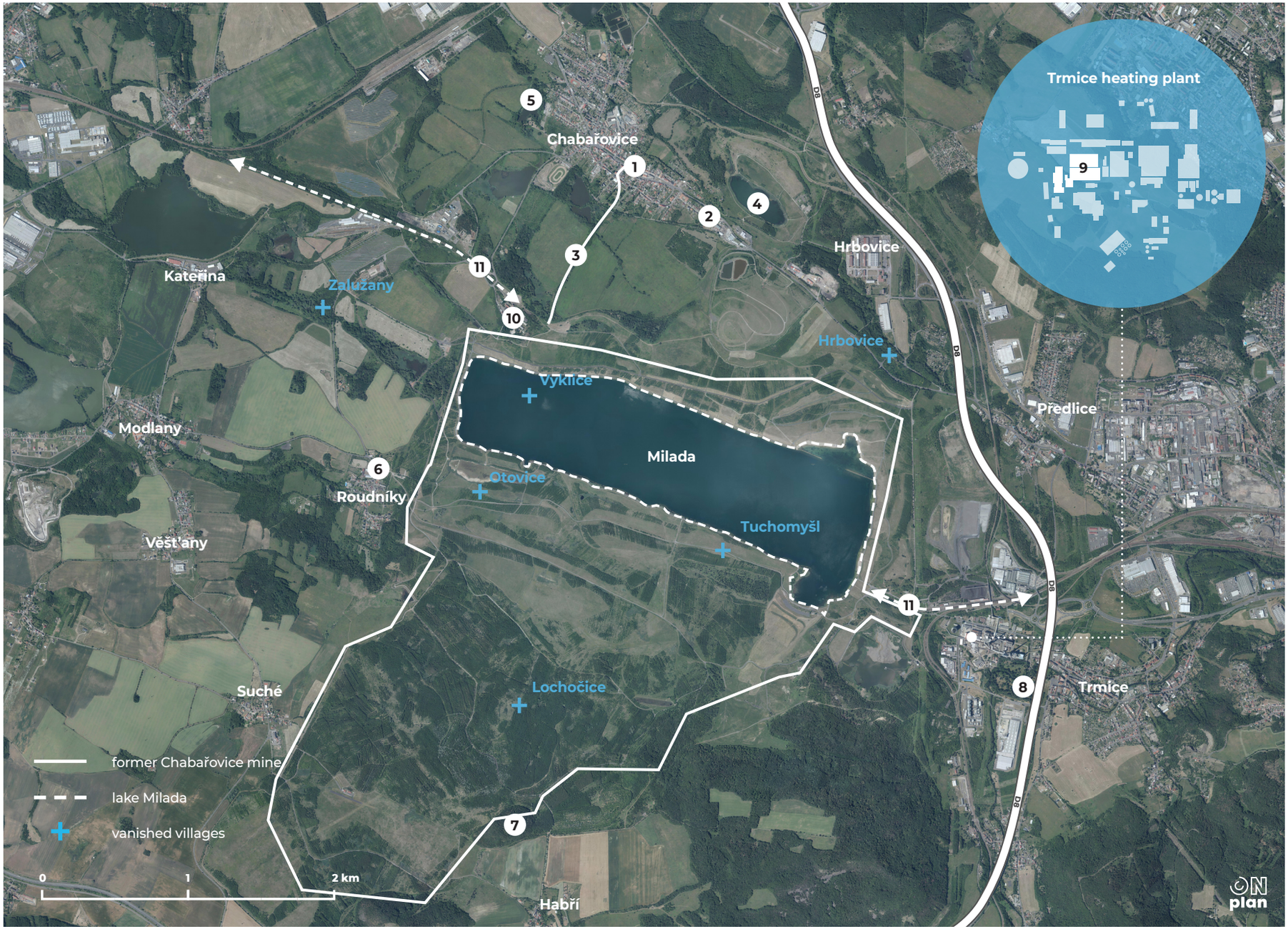
7 Jedovina hill

8 Trmice castle

9 historical buildings of the Trmice heating plant

10 Chabařovice steelworks

11 remains of coal railways


Trmice heating plant
9
5
Chabařovice
1
2
4
3
11
10
Hrbovice
Kateřina
Zálužany
Hrbovice
Vyklice
Předlice
Modlany
Milada
6
Otovice
Roudníky
Tuchomyšl
Věšťany
11
8
Trmice
Suché
Lochočice
7
Habří
D8
former Chabařovice mine
lake Milada
vanished villages
0
1
2 km
ON plan

PRESENT DAY

Regional context

Milada as a part of the North Bohemian basin

Milada is located in the eastern tip of North Bohemian lignite basin (also called Most Basin), which extends over Ústí nad Labem and Karlovy Vary regions. It is a tectonic depression, which is bordered by the Ore Mountains and Děčín highlands in the north, which together form the border with Germany. In the east, the Most basin begins at Ústí nad Labem and continues through Krupka, Teplice, Most, Chomutov, Klášterec nad Ohří and Žatec, and it extends to the Doupovské Mountains. It is bordered by the Central Bohemian Mountains in the south-east. At the bottom of this tertiary ditch depression, up to a 500 metre-thick layer of clay, sand and organic matter, which forms the basis for coal strata 25-45 metres thick, has accumulated over millions of years. From the end of the 17th century, they became the subject of mining (originally underground and later surface mining), which in the 20th century completely changed the relief of the entire Most basin. The mining development also brought the development of power, heavy and chemical industries. A formerly harmoniously used densely populated fertile agricultural landscape has been strongly influenced by mining and industrial production since the 19th century.

In the 1990s, the territorial-ecological limitations of coal mining came into force, extensive surface mining was gradually reduced and the Most basin landscape was reclaimed. Completely new landscape types and water bodies have been emerging. The Milada and Most lakes have been added to the now traditional water recreation areas and premises of the flooded Barbora quarry in Oldřichov near Duchcov and Kamencové Lake in Chomutov. In connection with the planned reclamation of the ČSA, Vršany, Nástup and Bílina quarries, other lakes are to be created. The Most basin area thus has the potential to become a lake landscape in the future, not as extensive as in neighbouring Germany, yet a huge lake landscape in the Czech Republic context creating significant recreational potential. The new post-mining lake landscape of the Most basin, together with the massifs of the Ore and Doupovské Mountains and the Central Bohemian Mountains, shall be a landscape of dramatic transitions, a landscape partly newly harmoniously used by humans, partly heavily urbanised and industrial. Milada could then be the eastern gateway to this new landscape. If this potential is used, the currently negatively perceived mining and industrial region with a number of social problems can change into an attractive place to live.

Tourist attractions in Milada’s sourounding areas

Lake Milada is located between the Ore Mountains, Bohemian Switzerland and Central Bohemian Mountains. These are tourist-attractive locations with a number of accommodation facilities, hiking trails and bike trails, climbing terrains and natural and historical attractions. In the Ore Mountains, the Erzgebirge/Ore Mountains Mining region has been newly added to the UNESCO World Heritage List, which also includes Krupka located 10 km away from Milada. In the eastern tip of the Most basin, which includes Milada, there are also a number of interesting and sought-after tourist destinations including Střekov Castle and zoological gardens in Ústí nad Labem, Teplice Spa, Dubí Spa, Duchcov Castle, Osek Monastery and Royal Field in Stadice.

However, the Ústí nad Labem regional area is still primarily perceived negatively by the general public as an area with a poor environment and poor socio-economic situation, which is affected by mining and industry.

Milada as part of nationally important development axes and areas

The Development policy of the Czech Republic includes the area around Lake Milada in the development area of Ústí nad Labem and two nationally important development axes.

The Ústí nad Labem development area includes the area around Ústí nad Labem and Teplice. This development area represents a high concentration of population and economic activities, most of which are of national importance. The fundamental task here is to regenerate the landscape sourounding urban cores.

The development of the Prague – Ústí nad Labem – Dresden axis is mainly linked to the European-wide major shipping channels, road and rail transport lines. The Elbe River is an important shipping chanel, which connects the landlocked Czech Republic with the North Sea. An important railway corridor runs from Prague to Dresden along the Elbe River. Planning is in place to build a new high-speed Prague – Ústí nad Labem – Dresden – Berlin line, but its corridor is not yet clearly defined in the area around Ústí nad Labem. West of the existing railway line, in the vicinity of Lake Milada, the D8 motorway also connects Prague and Dresden.

The Ústí nad Labem – Most – Chomutov – Karlovy Vary – Cheb – Nuremberg development axis is a heavily urbanised area connected by important transport routes – in the western part by the R6 motorway, and in the eastern part by the I/13 road. The development of the area is related, among other things, to the Most Basin's revitalisation potential.

Social cohesion

The key issue in the core area of the Ústí nad Labem Region, defined in the Regional Development Strategy through 2027, is social instability and the low social status of a large part of the population. This issue primarily stems from the sudden change in the demography, which occured due to the post-war settlement of the area, and recruitment premiums paid in the second half of the 20th century. Newcomers often had lower social status, and cultural patterns that evoke lower social status are copied to future generations as well. At the same time, the newcomer population and subsequent generations do not have a sufficiently intense connection to the area. These factors lead to the relatively low civic engagement, lack of local elites and community leaders. The other causes of social instability include the economic characteristics of the region – high unemployment rates and lower wage levels, which cause undesirable social phenomena leading to the emergence and expansion of the number of socially excluded individuals and localities.

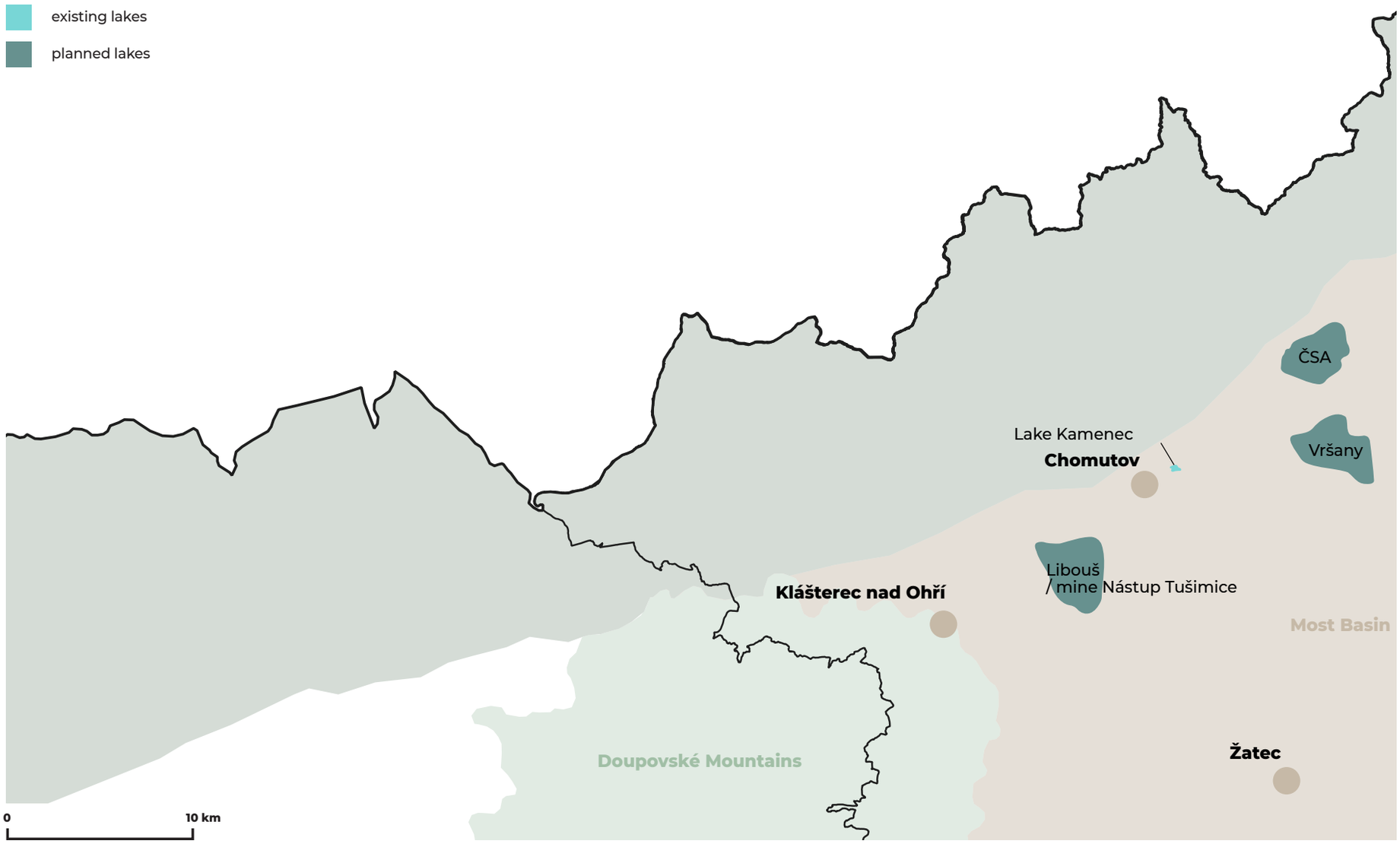
That raises another separate issue, namely low property values, which deters private investments in real estate. As a result, there are negative social phenomena in the area which lead to the deterioration of the image of the region and the polarization of society, and in the long run they can lead to a significant decline in population.

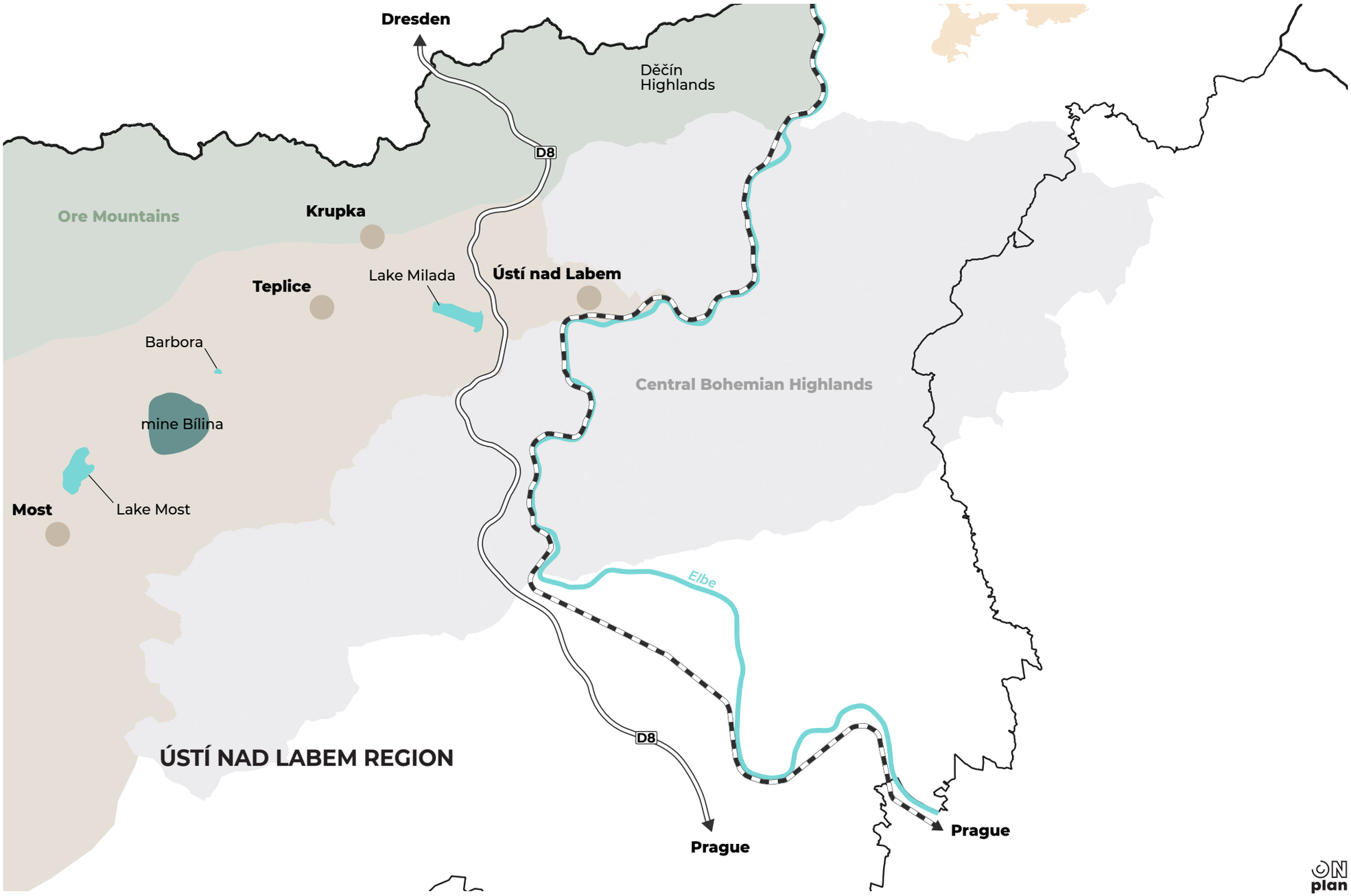
Lake Milada area has the potential to positively affect the image of both Ústí nad Labem and wider region in the future. Therefore, it has the potential to meet one of the four development goals of the Regional Development Strategy through 2027 – development goal J.1 : To increase the population's social status and eliminate social instability.

Lake Milada has the potential to significantly increase the residential attractiveness of the region, the life quality in the area and thus contribute to the retention of the younger, educated generation in the region. At the same time, it can offer services and environmental quality to the inhabitants of the region above the average in the Czech Republic (maybe only Brno has such a large water area in the immediate vicinity of the regional city), and it can give residents a strong identification with the area in which they live.

SITE INFORMATION

Regional context diagram




Dresden
Děčín
Highlands
D8
Ore Mountains
Krupka
Teplice
Lake Milada
Ústí nad Labem
Barbora
mine Bílina
Central Bohemian Highlands
Most
Lake Most
Elbe
ÚSTÍ NAD LABEM REGION
D8
Prague
Prague

Area of interest

The area of interest includes the area between Lake Milada and its surrounding settlements, in which the main task is to connect Milada with these settlements. It is not only about connecting the road network, but also about creating a city to landscape transect, connecting the new and original landscape structures, but above all, about finding the optimal use of space between these settlements and the lake so that the lake becomes the maximum benefit for the inhabitants of these settlements and an organic part of their surroundings.

Lake Milada's new landscape

Lake Milada's new landscape is part of the eastern part of the Chabařovice basin, which stretches between the Krušovice Mountains and landscape of the Central Bohemian Mountains. The former dominants of the Jedovina, Habří and Věšťanský hills have been supplemented in the north by the ridge of a reclaimed chemical waste dump, and in the south by the reclaimed Lochočická dump, the shape of which brings the new landscape closer to the Central Bohemian Mountains. The new forests in the southern part of the area fuse seamlessly with the forests on the right bank side of the valley of the Bílina River and thus merge into a continuous forest massif. There are a number of water bodies around the lake including Kateřina, Modlany, Zalužanský Pond, Násada, Školní Pond, Petri and numerous wetlands. Some of them have existed for a long time, but a large part of them arose as a result of mining activities, and some as part of the land reclamation process. The whole area falls into the basin of the Zalužanský and Modlanský streams.

Lake Milada's new landscape is gradually becoming part of a wider area, but it is necessary to create new landscape connections, interconnections of landscape structures, individual landscape elements, interconnection with the surrounding settlements, and perhaps to return some historical paths that will make Milada an integral part of its surrounding landscape.

Road network – motorways, first and second class roads

The area of interest adjacent to Lake Milada is well served by a road network of motorways, 1st and 2nd class roads. Its axis is the D8 motorway, which connects Prague, Ústí nad Labem and Dresden. Through its crossroads, it connects the regional road routes and thus ensures the accessibility of the area around Lake Milada from both the Czech Republic and Germany. However, the motorway also creates a barrier between the urban area of Trmice and Ústí nad Labem and the landscape around Lake Milada and is a source of noise and emissions and, of course, a land use limit.

Road I/13 connects Ústí nad Labem and Teplice and supports the so-called Teplice-Ústí nad Labem industrial belt, which adjoins the built-up area of Chabařovice from the north. This area is primarily home to production and commercial facilities, and housing is currently practically absent there.

Road I/62 with its motorway characteristics connects the Suché, Habří and Roudníky Municipalities to the D8 motorway. Lake Milada is connected via these setlements from the south-west.

Road II/253 is an important road connection from Ústí nad Labem to Chabařovice. The entrance to the area of Lake Milada from the north-east connects to this road. However, the competition site's road connection to road II/253 and the motorway feeder 's directional layout from the D8 interchange can be described as unsatisfactory.

Milada and surrounding settlements

The area of interest is mainly influenced by the location between Ústí nad Labem (over 93 thousand inhabitants) and Teplice (almost 50 thousand inhabitants). Lake Milada has the potential to become a recreational catchment area for both of these cities. The Voluntary Association of the Municipalities of Lake Milada consists of the town of Ústí nad Labem, the town of Chabařovice (including Roudníky a settlement of 2,500 inhabitants), the town of Trmice (3,300 inhabitants) and the town of Ústí nad Labem (with the settlements of Habří and Stadice).Modlany municipality (including the settlements of Suchá and Věšťany which are in the vicinity of Lake Milada) is not currently a member of the voluntary association.

Links to Trmice and Ústí nad Labem

The area between the motorway and lake, or between Trmice, Ústí nad Labem and the lake, currently features its significantly peripheral, industrial character. The impenetrability of the area between road II/253 and the motorway junction (Trmice exit) makes access to the entire area of Lake Milada for pedestrians and cyclists from the town of Ústí nad Labem difficult. This is, of course, a consequence of the historical development, where the Chabařovice quarry area, closed to people, was directly connected to industrial premises. However, due to the quarry's transformation into a lake, this area has a huge potential, which is awaiting its use. Edisonova Street has probably the greatest potential to become a dignified and sufficiently high-capacity connection between Milada and Trmice, as well as Předlice.

The historic buildings in the Trmice heating plant together with Trmice Château, which are connected to the wide Edisonova Street and the remnants of the Ústí nad Labem – Teplice – Chomutov railway, may in the future be a crucial entrance point to Lake Milada, but also the eastern gateway of the whole Most basin's reclaimed landscape. This location is exceptional in that it connects all the stages of the modern history of the region – pre-war history, i.e., pre-mining history (Trmice Château), industrial history associated with mining (Trmice heating plant, railway), and post-mining history (Lake Milada and plans for reclamation of the former May 5th mine, currently a stabiliser repository –- a so-called ash pit).

Předlice, and thus Ústí nad Labem, and also Milada, are linked to Chabařovice by road II/253. By choosing an appropriate development strategy, Předlice can prosper significantly in the future from the vicinity of Lake Milada. The premises of the former municipality of Hrbovice and the area of PKÚ are also connected to road II/253.

Links to Chabařovice and Roudníky

Accessibility from the north-east is currently also ensured via road II/253. Today, the lake is connected to this road from Chabařovice around the steel plant. However, the capacity of this entry point is limited, even with regard to the plan to revitalise the steel plant premises.

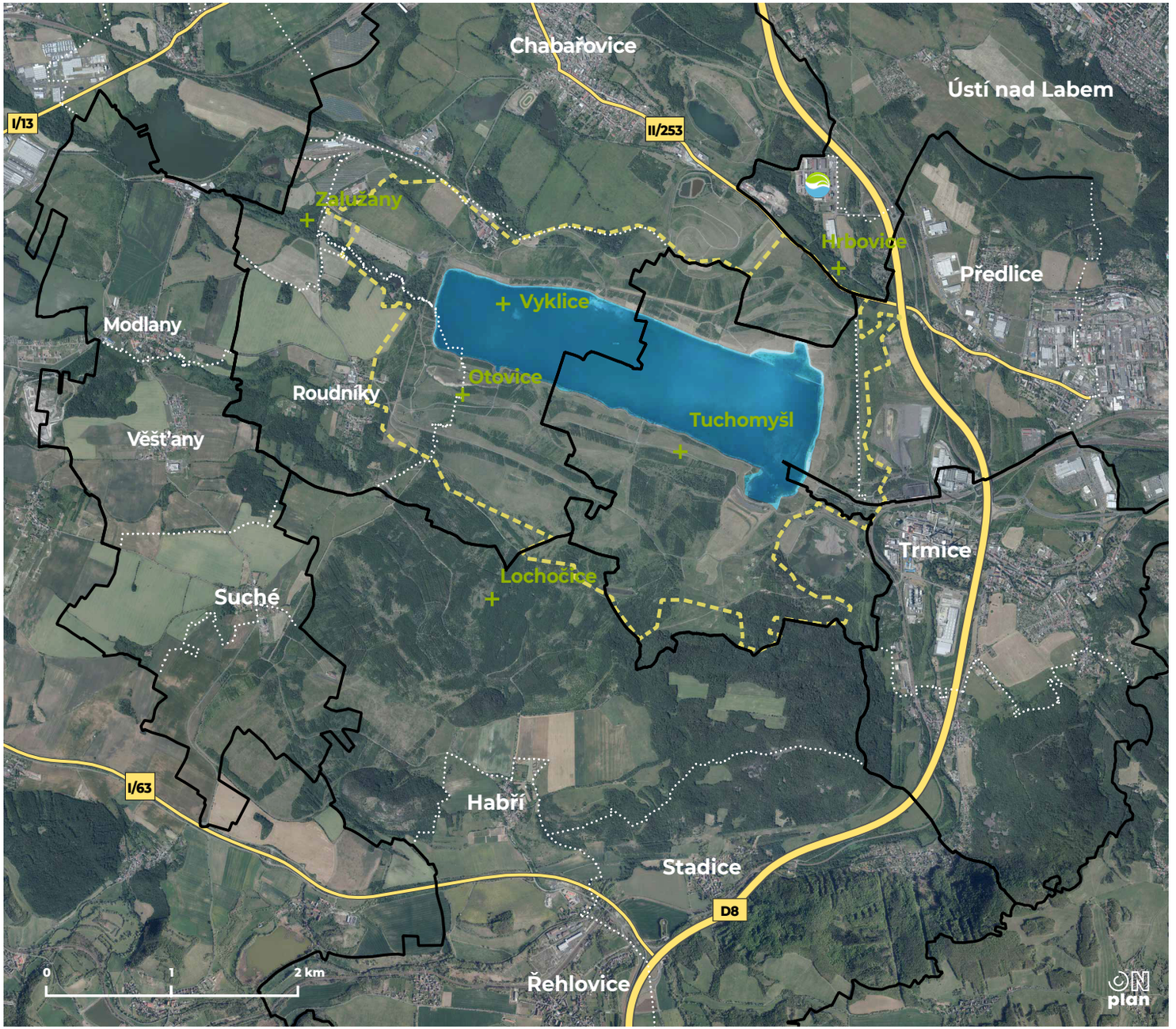
The links between Chabařovice and the lake are among the best and most important links in Lake Milada's area of interest, both in terms of transport connections and landscape links. A pedestrian route with its educational trail from the lake to Chabařovice leads through so-called Vyklická Avenue from the steel plant, along the cemetery square. The other route leads from Chabařovice along the railways to the steel plant on a class III road, which continues to Roudníky. The Roudníky settlement (part of Chabařovice) with its Church of St. Wenceslas, is a very important dominant of the south-western part of the landscape adjacent to Lake Milada. In particular, the southern and south-western edge of Roudníky already gradually expands through its recreational facilities.

SITE INFORMATION

Area of interest diagram – landscape

- competition site
- water bodies
- landmarks
- new forest around Milada

1 Věšťany hill
2 Jedovina hill
3 Habří hill
4 Lochočice mound
5 chemical waste landfill
6 Kateřina reservoir
7 Zalužany reservoir
8 Modlany reservoir
9 Petri pond
10 School pond
11 Násada pond
12 Bílina river
13 Modlany stream
14 Zalužanský stream



Area of interest diagram – surrounding settlements and transport network

- competition site
- vanished villages
- municipalities administrative area
- cadastral area
- seat of PKÚ, s. p.

Sports and recreational facilities in the surrounding settlements

In 2018, according to data of the Czech Statistical Office, 40 accommodation facilities existed in Ústí nad Labem administrative area of the municipality with extended powers. The average stay was 3.1-nights. In the Milada area of interest there are 18 accommodation facilities in Ústí nad Labem, 4 facilities in Trmice and 1 facility in Chabařovice, where a camp is operated at the Velký Luční pond.

The situation in Teplice, which is an important spa center with established facilities for specialized spa, treatment, relaxation, weekend and weekly stays, is different compared with Ústí nad Labem. The Teplice spa primarily focuses on the treatment of musculoskeletal system diseases and musculoskeletal system disorders. Lake Milada with its surroundings and road network, which already offers a number of barrier-free circuits, may be an important natural background of this spa.

In the Study of opportunities for tourism development in the area of Lake Milada (KMPG, 2010), the author carried out an analysis of the sports facilities located around Lake Milada. It included those sports facilities that are commercially leased to the public. The general conclusion was that the activities and sports facilities on offer in the area of Ústí nad Labem are relatively limited compared with the offer of similar locations , for example in the regions of České Budějovice and Liberec. Among the most important local sports facilities are the Chabařovice motor resort, the sports complex with its football stadium, the car camp with a swimming pool in Chabařovice and the Trmice municipal sports club (soccer, tennis , volleyball, soccer). In Ústí nad Labem, there are a number of outdoor sports facilities with football fields, tennis courts and other courts, a winter stadium, swimming pool, outdoor swimming pool, etc.

Spatial planning documentation

In terms of administrative division, Lake Milada area of interest is located in the Ústí nad Labem Region and falls into two administrative district of the municipalities with extended powers; Ústí na Labem and Teplice.

The Development Principles of the Ústí nad Labem Region (hereinafter ZÚR - Zásady územního rozvoje) define the area around Lake Milada as redevelopment area ASA9. For planning and directing the spatial development of this area, the ZÚR sets the task of using spatial planning tools for securing conditions for ongoing reclamation and regeneration of the post-mining area, taking into account the area's needs, specifics and values. The important developmental aspects include the need for supra-regional and suburban recreation of the Ústí nad Labem – Teplice urban area, improving accessibility, promoting suitable forms of agricultural and water management use, strengthening of the ecological stability of the area and protection and preservation of biodiversity.

Ústí nad Labem Region Development Principles define a corridor for the high-speed Prague – Berlin track in the area between Lake Milada and Teplice. However, it is was a tentative plan, according to the available information, the high-speed rail connection in the Ústí nad Labem metropolitan area is to be different than the one defined by the Development Principles – it is basically set to lead along the existing track and D8 motorway.

In the Ore Mountains Spatial Study commissioned by the region of Ústí nad Labem, there is a proposed link of the Ore Mountains cycle paths to the Elbe cycle path through a new cycle path from the area of Přestanov through Chabařovice around Lake Milada, and through Trmice and Ústí to the Elbe. This is only a concept that hasn't been discussed in depth for the moment.

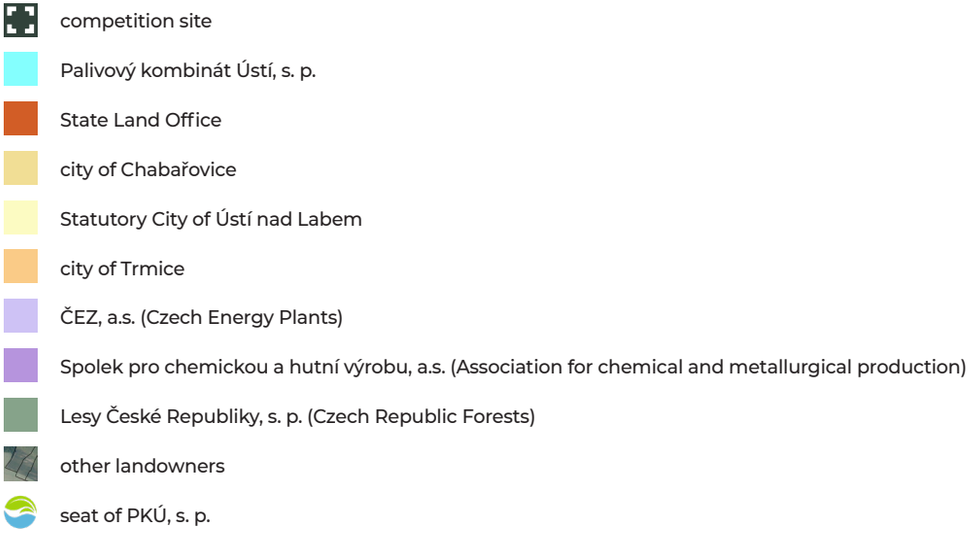
The area around Lake Milada is regulated by the spatial plans (statutory documents) of the Ústí nad Labem, Chabařovice, Trmice and Řehlovice municipalities. Approximately half of the competition site is part of the administrative area of the Chabařovice Municipality while almost another half falls under the Ústí nad Labem Statutory Municipality. Besides, small parts of the site extend to the administrative area of the Trmice Municipality and the Řehlovice Municipality.

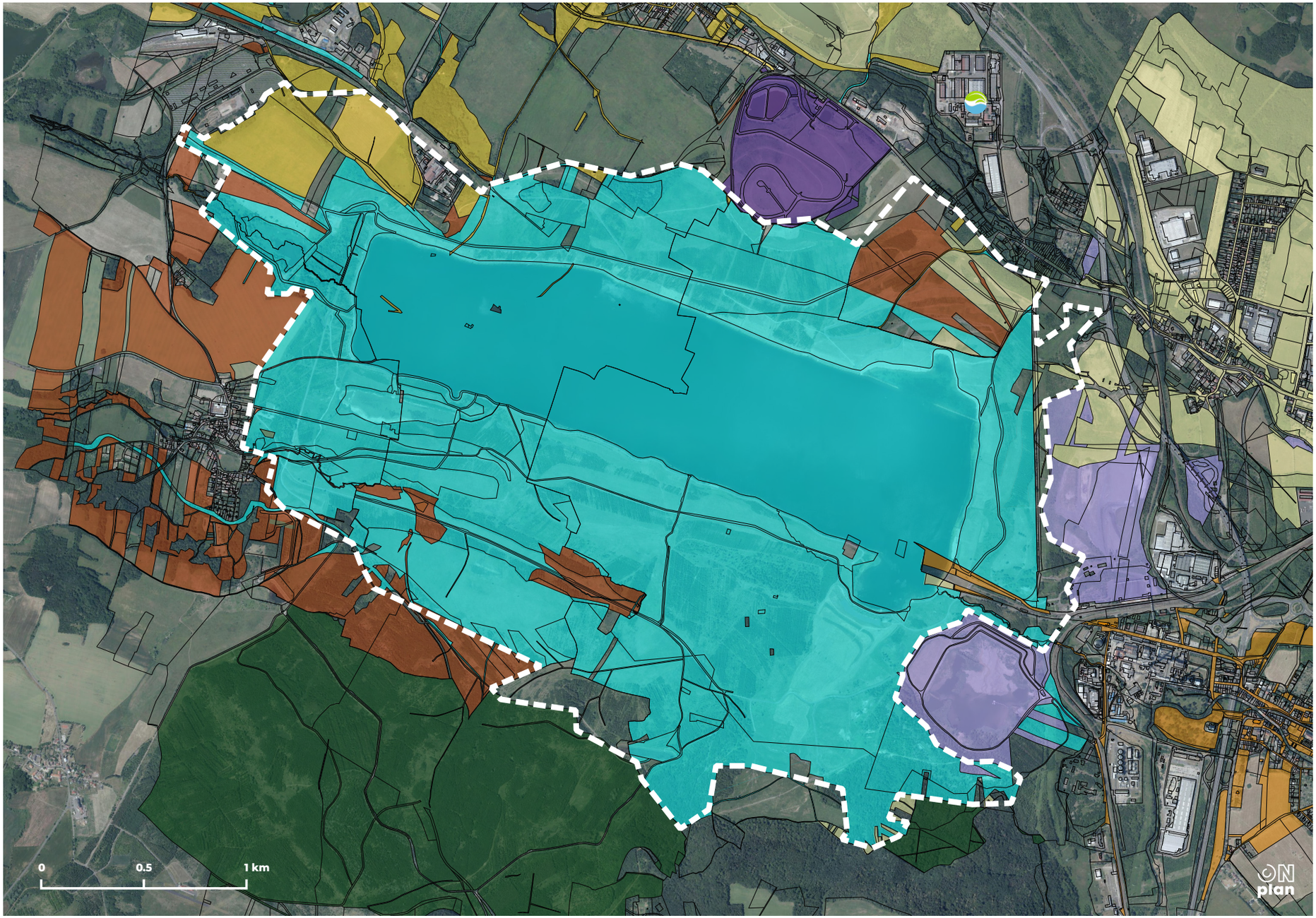
In these spatial plans, the area between the surrounding settlements and Milada is primarily resolved in the form of classical functional zoning, while the issue of the urban settlements' transition to the landscape or the possibility of multifunctional sustainable use of the new landscape is not addressed. Due to the fact that the goal of the competition is to find the optimal concept and strategy of territorial development, the zoning documentation is not a binding basis for the competition, on the contrary, the competition results may become a basis for the newly created zoning plan of Ústí nad Labem and Chabařovice, possibly also for any changes of the zoning plans of Trmice and Řehlovice.

Competition site - ownership

The competition site is primarily defined by ownership relations – in this area, the majority of land belongs to the state. Most of it is under the administration of PKÚ, s. p., with an exception in the area adjacent to the Chabařovice steel plant. The actual steel plant premises are the subject of insolvency proceedings, the land adjacent to the steel plant is largely owned by the Chabařovice municipality.

The unity of ownership is a great advantage for the possibility of a conceptual approach to the entirety of Lake Milada site.

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Lake Milada and water managment on the site

Water managment in the pre-Milada period

The Zalužanský stream and part of its left tributary flowed through the area before mining began at the Chabařovice mine. The Modlanský stream flowed from the right into the Zalužanský stream at the vanished Tuchomyšl municipality. With the gradual growth of the Chabařovice surface mine and the disappearance of a part of the landscape, the water management conditions in the region have changed fundamentally. This was mainly the relocation of the original stream beds, the construction of retention reservoirs and the introduction of mine water pumping.

The Chabařovice quarry was protected against surface inflows from the west by its twin system of reservoirs – Modlany and Kateřina. The Modlanský and Drahkovský streams and the relaying of Lochočický stream flowed into the Modlany reservoir. From the Modlany reservoir, water was transferred through an artificial canal to the Kateřina reservoir on Zalužanský stream.

The filling of the Chabařovice mine residual pit with water began in 2001 via two methods from the Kateřina waterworks through a pipeline (old firewater supply) and from the lower outlet through the canal of the former Modlanský stream (via the Zalužany wetlands). In addition, the filling was done from a well overflowing, which supplied the lake with old waters and also rainwater from the lake basin.

In 2004, works began on anti-abrasion measures and fortification of the shores with a stone backfill, which defined the lake's final shape. The continuous shore protection during the filling of the lake was accomplished by combining geotextile with hydroseeding. The filling of the lake was completed on August 8, 2010.

Milada and the area's current water managment

The present lake parameters are as follows:

- water area of 252 ha (slightly smaller than the popular Máchovo Lake),
- water volume of 35 million $m^{3,}$
- maximum depth of 25 m,
- perimeter of approximately 9 km,
- maximum width in the longitudinal direction of 3.2 km, maximum width in the transverse direction of 1.3 km,
- water quality is high, water transparency is up to 7 m,
- the permanent water retention elevation is 145.7 m above sea level.

The lake shores are fortified with a stone bed, interrupted at the beaches and water entrances. The beaches are made of pebbles. Practically along the entire lake shore, about 20-30 cm under the water surface, breakwaters are constructed at an approximate distance of 10 metres from the shore, preventing lake shore erosion caused by relatively high waves forming in strong winds. The breakwater is only interrupted in the main lake beach area and in the area of the planned pier in the south-eastern part of the lake.

At present, the natural tributaries of Milada are primarily the drainage ditches on the northern, western and eastern slopes, which drain rainwater from the slopes directly into the lake. The lake is also partially fed by old waters (see the Mine waters section). The lake is located in the Zalužanský stream catchment area, which has in the long-term only supplied minimal amounts of water, and most of the water is captured in the Zalužanská reservoir. The eutrophicated waters of Modlanský stream had to be drained off Lake Milada into the Bílina River after the lake had been filled. At present, a new stone and concrete paved canal of this stream is being constructed.

Excess water from the lake is drained through a kilometre-long connecting pipe into an open ditch connected to the Bílina River.

One of the key area renovation tasks is to achieve and maintain the optimal final quality of the lake water, usable for ecological purposes and for swimming. Bio-regulatory interventions were carried out in the lake, the aim of which is to ensure a balanced state of its flora and fauna so as to help maintain water quality. In order to maintain the optimal fish stock, fishing is prohibited in the lake. Unlike the valley reservoirs, the water of Lake Milada cannot be drained. It is, therefore, essential to exclude any activities that pose a risk of direct or indirect pollution of the lake water within the Lake Milada basin. Water quality is regularly monitored by sampling and underwater fish survey.

Mine water

There are extensive lignite deposits located north and west of the lake. This area was undermined by previous underground mining, which took place here from the 18th century onwards. The so-called abandoned mine drainage accumulates in the excavated mining areas. Two mine water pumping stations have been built around the lake not only to reduce its level. The first is located in the area of the Trmice heating plant in the former Franz Josef mine works, the mine water is pumped permanently here. The water is discharged into the adjacent watercourse and then into the Bílina River. The second pumping station is located in the Modlany Municipality in the Kateřina locality. There is no permanent pumping at this pumping station, as two so-called overflow wells are built on the lake shores, through which the accumulated mine water is naturally discharged into the lake. Overflow well 9 is located on the lake's northern slope near the boat mooring place, and the newly built overflow well 12 is located on the western slope below the Zalužany parking area.

Technical measures to ensure the stability of the site

The residual quarry pit was located in a place with very unfavourable mining-technological and hydrogeological conditions. As part of the reclamation, it was necessary to implement extensive preventive redevelopment measures leading to the stabilisation of the area (drains, stabilisation benches, pile walls, etc.).

It was necessary to continuously resolve a number of emergency situations via technical measures: slips, landslides, breaches, and other partial manifestations of the area instability. Landslides and slips in the area of the northern slopes, the south-eastern part of the inner dump in the Roudníky locality, slopes below the steel plant, and Rabenov slopes were gradually redeveloped. To resolve long-term problems with slope stability, pile walls were built on the Rabenov slope and northern slopes below the Spolchemie landfill. The redevelopment measures subsequently forced the necessary alterations in the scope of biological reclamation, as well as the road and drainage system. These unstable areas are not suitable for permanent development, but their use for possible landscaping elements, temporary structures, stands, seating, etc., is possible.

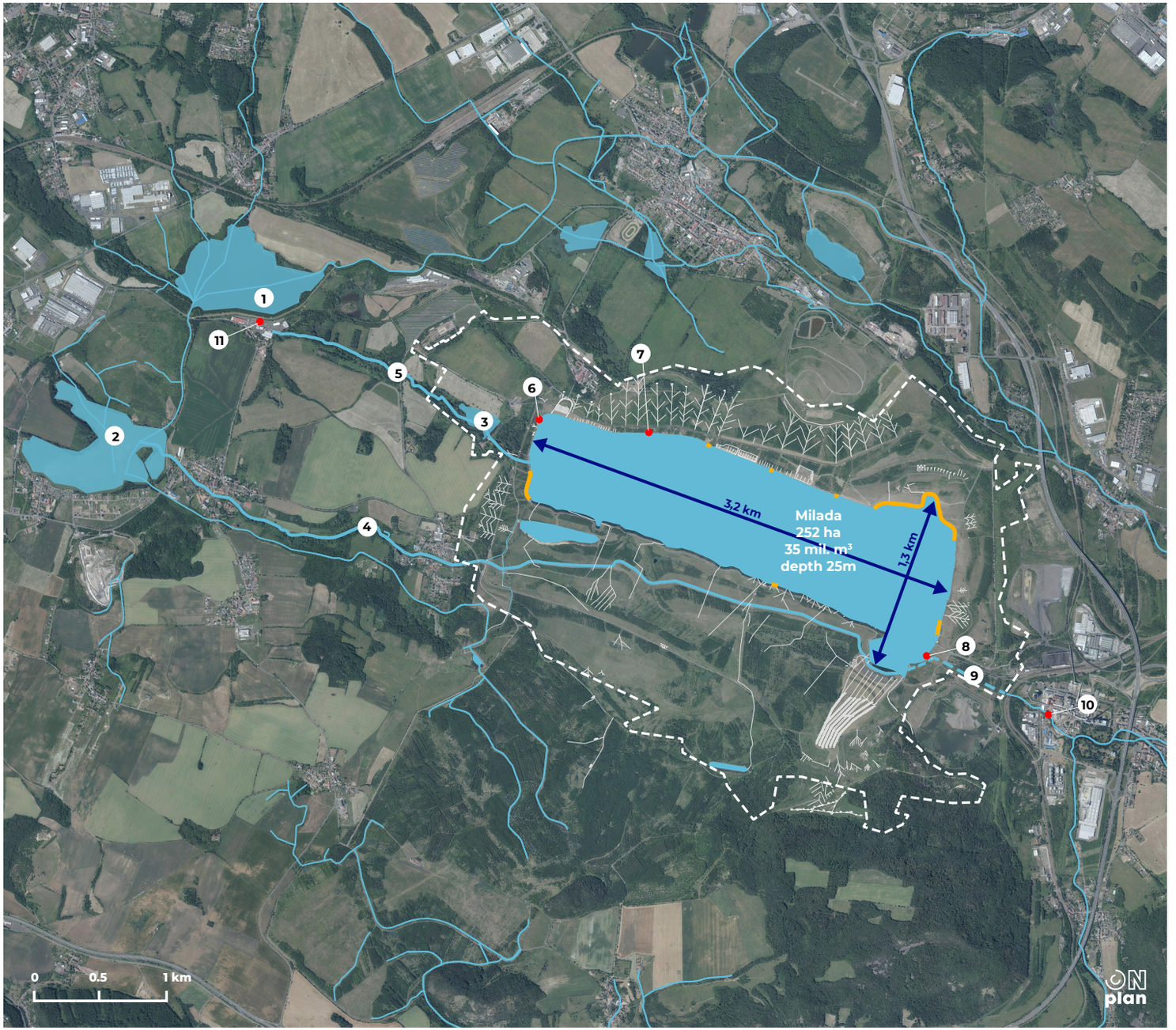
The integral part of technical measures to ensure stability is the area drainage system, which uses a network of ditches and drains that lead into the lake. The densest network of ditches and drains is in the northern and south-eastern part of the area.

SITE INFORMATION

Water managment diagram

- competition site
- water bodies
- drainage system
- beaches and accesses to the water

1 Kateřina reservoir
2 Modlany reservoir
3 Zalužany reservoir
4 Modlany stream
5 Zalužany stream
6 overflow well 12
7 overflow well 9
8 outfall system
9 transfer of water to the river Bílina - piped part
10 pumping station Franz Josef
11 pumping station Kateřina



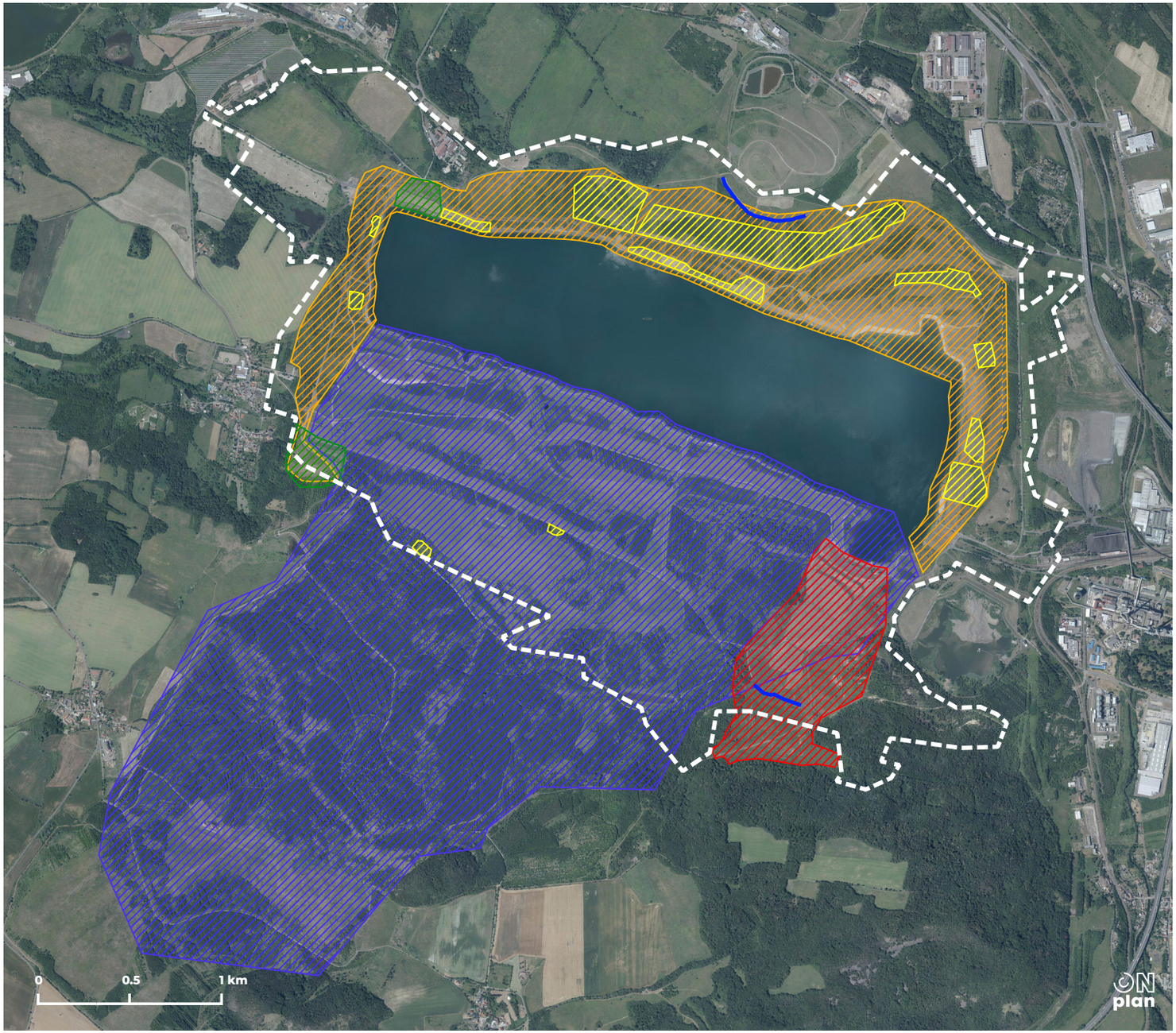


Diagram of technical measures

- competition site
- overburden slopes
- spoil tip slopes
- Rabenov slopes
- area of rehabilitated landslides Roudníky and steelworks areas
- area of stabilization, landscaping and drainage works
- pile wall

New landscape around Lake Milada

The landscape around Lake Milada is a charismatic space with a unique atmosphere. The lake water level is below the height level of the surrounding basin landscape and, therefore, the area around the lake is notable for its intimacy, offering an unexpected natural environment without the disturbing effects of its surrounding heavily anthropogenic landscape with industrial enterprises and transport structures. The obvious newly created dominant features of the area are besided Lake Milada, the Lochočice Dump and extensive forest reclamations.

The reclaimed area is basically a natural laboratory, in which natural processes are influenced by the set hydrological and pedological conditions and technical measures ensuring the area stability. In addition to a number of other technical limitations, the possibility of constructing buildings and other structures on the site will always depend on the knowledge and protection of current natural processes.

Biological reclamation of the area

Mine reclamation was carried out on a total area of over 870 ha, of which 329 ha represent forestry, 281 ha hydrologic, 52 ha agricultural and 210 ha of other reclamation.

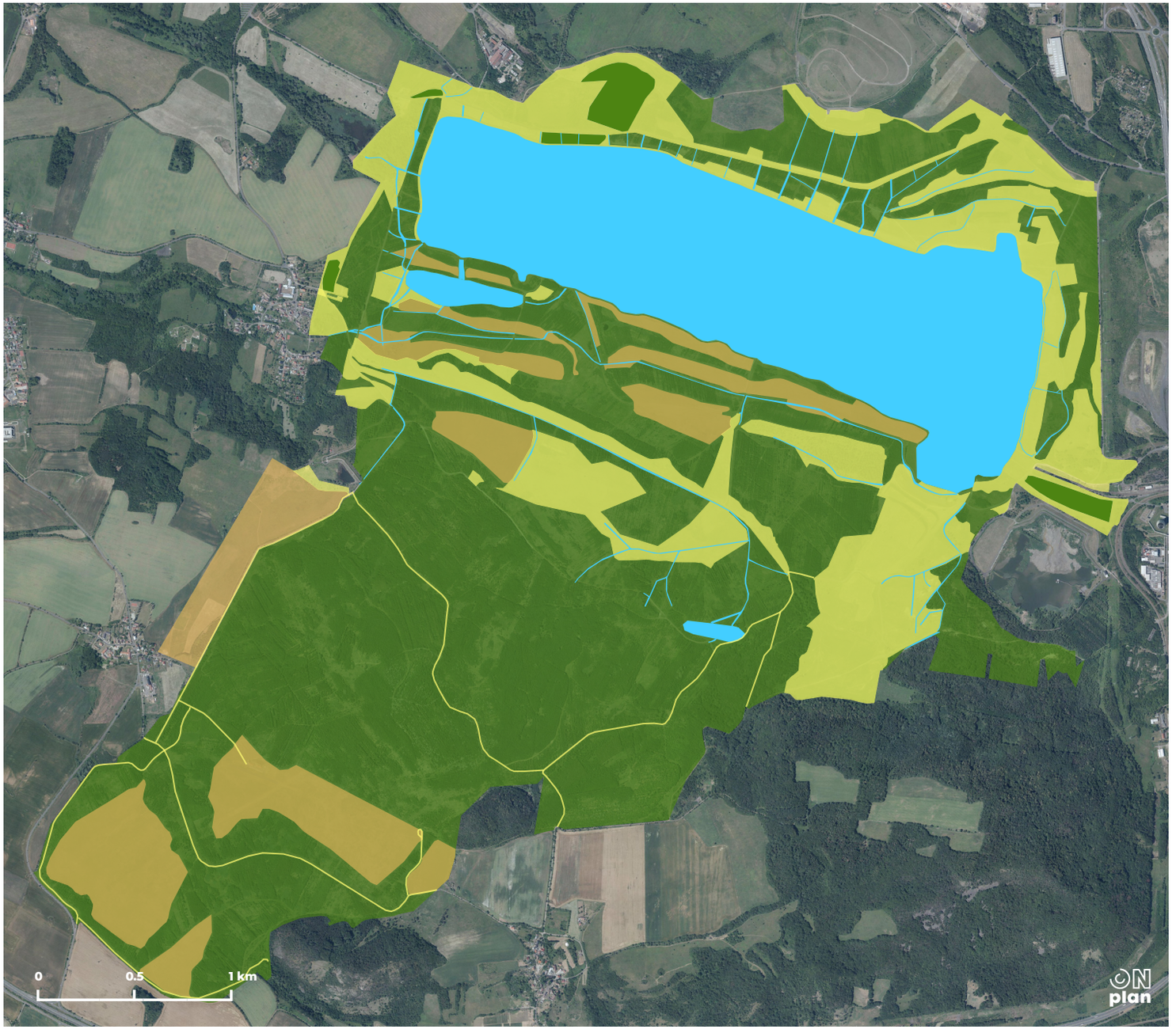
For the establishment of new forests, species corresponding to habitat conditions were selected. Thus, summer oak (Quercus robur), milk maple (Acer platanoides), ash (Fraxinus excelsior), hornbeam (Carpinus betulus), scots pine (Pinus sylvestris) and larch (Larix decidua) were chosen as target trees, grey alder (Alnus incana), sticky alder (Alnus glutinosa) and heart-shaped linden (Tilia cordata) as secondary trees, and bird's-foot-trefoil (Sorbus aucuparia), aspen poplar (Populus tremolo) and bird cherry (Prunus avium) as the disseminated trees. Marginal parts of forest plantations consist of hazel shrubs (Corylus avellana), European ivy (Euonymus europaeus), viburnum (Viburnum opulus), and honeysuckle (Lonicera xylosteum). The composition and procedure of plantings were adjusted for habitats with a normal moisture regime and habitats with increased soil moisture.

In the coal and titanium-like clay pits area, species have been selected that are faster-growing when young and less habitat demanding, which should screen-off the fly ash float faster. As part of afforestation, regional bio-corridors and local bio-centres were established. Tree species are currently involved, the age of which is from 5 to 30 years, older in areas undisturbed by mining – up to 60 years.

Deposited topsoil obtained from appropriations related to mining activities was used for the establishment of agricultural areas. For the biological revitalisation of the overlying layer, a land improvement agricultural cycle is implemented (shearing, dragging, sowing of a clover-grass mixture, mowing with cutting of green matter); permanent grasslands are the target culture. Depending on the current conditions, this method of reclamation allows for intensive or extensive management.

Other reclamation includes purpose-built roads, drainage ditches, built-up areas, grassing and other public greenery. Grassing is carried out without topsoil overlaying or intensive fertilisation as the areas will be used extensively. The recommended grass mixture has limited requirements for fertilisation and maintenance.

In the area around Milada, biologically valuable localities are gradually being created, and they currently serve as natural bio-centres with a higher concentration of species, particularly those specially protected, as well as other species. An overview of these localities is provided in the Limitations of the area use section.



Mine reclamation diagram

- water reclamation
- forest reclamation
- agricultural reclamation
- other reclamation

Recreation and sporting activities

One of the main objectives of the Chabařovice quarry reclamation project was to create an area intended for suburban recreation, sports and relaxation. After almost 20 years of planning, designing and reclamation implementations, the area around Lake Milada was ceremoniously opened to the public in May 2015.

Lake area amenities

A network of circular roads was built in the area, the basis of which consists of the Vyklice, Tuchomyšl and Otovice circuits. The routes are proposed primarily for pedestrians and cyclists. The Tuchomyšl circuit, which is designed for the integrated rescue system, has a high-quality asphalt surface and, therefore, is suitable for in-line skating and similar sports activities.

A total of seven beaches were built around the lake's perimeter, providing in total more than 1 km of waterfront with direct water access. The main beach on the lake's north-eastern shores is 800 m long and 20 m wide. From this beach, a strewn gradual entrance is built over the breakwaters, which facilitates access to the water and allows for kiteboarding. The Trmice beach on the lake's eastern shore is approximately 100 metres long. The Roudníky beach, fifty meters long, is located in the south-western area of the lake, close to the municipality of the same name. All the beaches are strewn with pebbles to keep the water clean. Selected beaches are equipped with a mobile toilets during the summer season.

There are two places reserved for camping at Milada. These are public camps where campfires are permitted. One area that occupies approximately 1 ha is directly adjacent to the main beach, and the second, which is approximately twice the size, is located near the Roudníky Municipality within walking distance from the beach.

End of the Season 2019 (above), source: PKÚ, s. p. photo archive Miladatlon (bellow), author: Jitka Oslejová

A total of six covered rest areas are located around the lake. A collection of temporary wooden elements – changing rooms, deck chairs, benches, bicycle stands, a book booth and shading facilities on the main beach – was created as part of the student architectural workshop, which took place in Milada in the summer of 2019.

Some services are provided externally at the lake during the high season, from May to September, especially refreshments and rentals of sports equipment. They are currently provided mainly on the main beach, and in addition on the beach of Trmice and near the municipality of Roudníky. These services are provided at temporary premises (mobile stands, seasonal establishments, boat boxes) and are not connected to the technical infrastructure. There are currently a total of 12 sites (rental areas) reserved for those purposes.

Photography of a sun shading construction (above) and a hammock (bellow), source: PKÚ, s. p. photo archive

Activities persued at the lake

The lake is used year-round. In addition to summer stays on the beaches by the water and walks throughout the year, there are a lot of people jogging, cycling, in-line skating and paddle boarding, windsurfing, kiteboarding, scuba diving and free-diving in the lake. It is also possible to operate non-motorised vessels. Organised sports clubs do not have facilities built at the lake, so sports activities are currently mostly enjoyed individually.

The lake and its immediate surroundings are regularly used throughout the year for the training of all the integrated rescue system units that are aimed at rescuing people from the water and transporting them to shore by boat, or even helicopter, scuba dives at night to find drowned persons, flood-related training, the rescue of persons from frozen surfaces, etc.

There are two large family-oriented public events regularly organised at the lake – the season opening and closing. Other sports, social or charitable events of local and regional importance with the participation of hundreds to thousands of people are gradually being added. They include the Miladathlon, Milada Winter Run, paddleboard races and the charity Run of Sincere Hearts.

With regard to the existing tourist infrastructure, the number of Lake Milada visitors depends to a large extent on the weather. Due to the fact that the entire area is freely accessible, the number of visitors can only be estimated through a visual evaluation of the parking space occupancy. In the summer months, the number of lake visitors reaches almost thousand per each day.

The area administrator (Palivový kombinát Ústí, s. p.) issued visitors' rules, which stipulate conditions for tourist, sports and recreational activities in the area, designate places for permitted activities or actions, including motor vehicles entry and parking places. Compliance with these visitor guidelines is monitored by the area administrator's guard service, and compliance with generally valid legislation is also monitored by the police.

Lake accessibility improvement project

A project is currently being implemented in the region, with the aim of improving Lake Milada 's accessibility for swimmers and recreational crafts as well as increasing the biodiversity of coastal associations. The accessibility improvement project will be completed in 2020. Selected places on the lake's shoreline would feature:

- a total of three floating eco-piers consisting of a grouping of four piers of approximately circular shape with a diameter of 3 m, which will be anchored to the lake's bottom by a chain,
- four simple floating rectangular piers measuring 6 × 2 m, which would be anchored to the shore; the piers shall enable swimmers comfortable water access across breakwaters,
- four larger piers for swimmers enabling, in addition to water access, also sitting, sunbathing, etc.; these piers will consist of an access part with a total length of 12 m, followed by a square pier measuring 6 × 6 m and two free-floating piers of approximately circular shape with a diameter of 3 m,
- this project also includes the construction of 2 smaller docks created by piers, each of which will be able to moor 2 boats, and 1 larger boat dock with two entrance piers approximately 16 m long, which offers the total of 10 mooring spots and connection to electricity and drinking water.

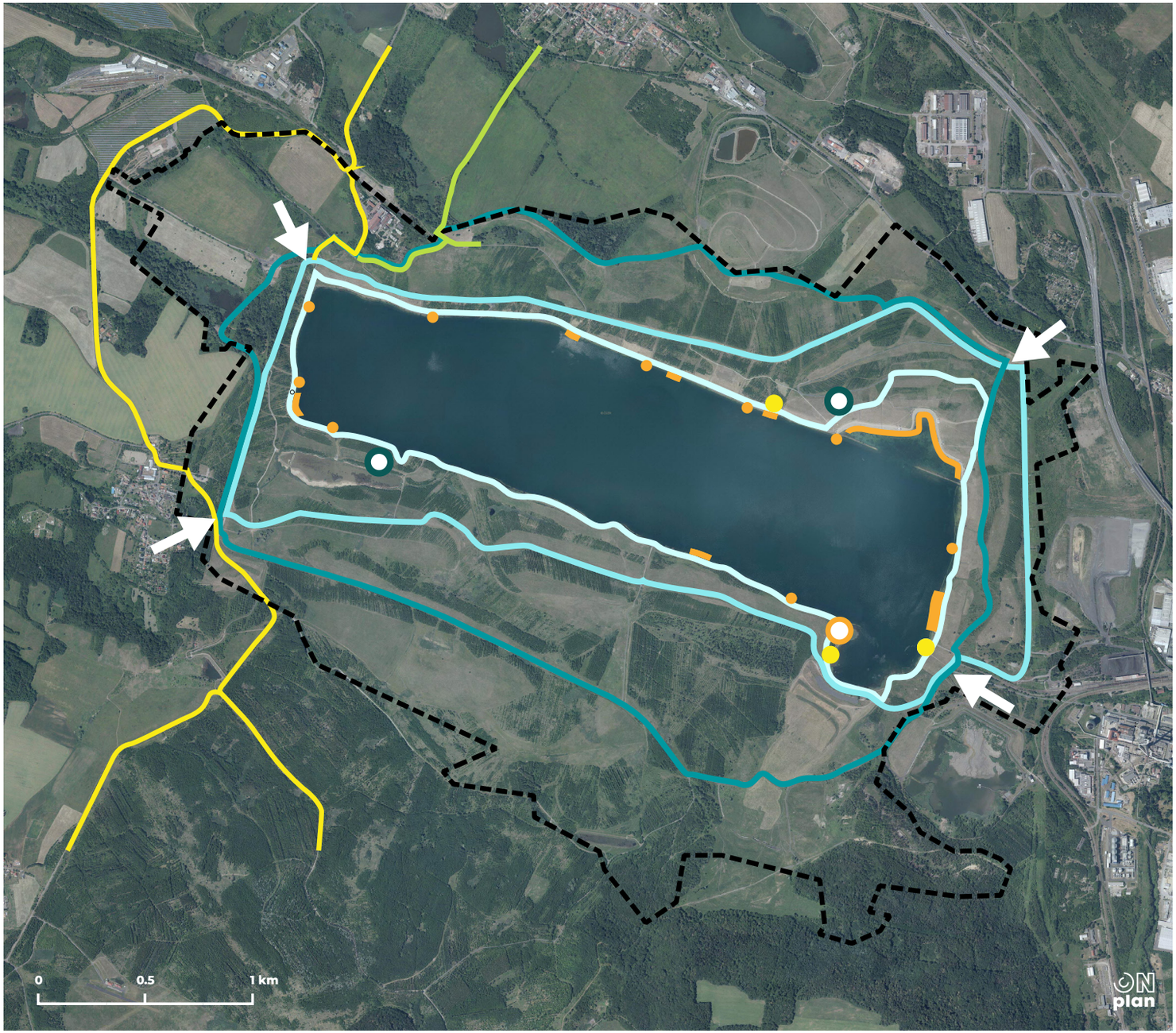


Diagram of the amenities around Milada

- competition site
- Vyklice circuit
- Tuchomyšl circuit
- Otovice circuit
- cycleways
- nature trail
- entrances to the site
- beach
- camping site
- access for windsurf and other water sports
- new pier, eco pier (being realised)
- new marina and water rescue service center (being realised)

Transport and accessibility of the site

Road transport

The Lake Milada area is today connected to the adjoining road network from four directions. These entry points feature visitors' car parking spaces as cars are not permitted to enter lake's close vicinity. The four connections include:

- From the north-east, in the direction from Ústí nad Labem (from former Hrbovice), Milada features an access road that connects the area to Class II road No. 253. This entry point is primarily used by visitors to the main beach and by seasonal service providers at the lake.
- From the south-east, in the direction from Trmice, Milada features an access road that connects the area to Edisonova Street in Trmice. This access area is primarily used by visitors to Trmice beach and those who come from the D8 motorway, enjoy windsurfing and kitting on the lake or bring small non-motorised vessels to the lake.
- From the north-west, in the direction from Chabařovice (from the former Zalužany), Milada features an access road that connects the area to the Class III Chabařovice – Roudníky road.
- From the south-west, Milada is connected by a short road to Roudníky via a road leading along the church and also through the Suché Municipality on the Modlany – Řehlovice road.

Visitor parking spaces can be found at each entrance point. They are just open spaces at all four sites, without any building-technical features, traffic signs etc. In the summer season the capacity of these parking spaces will be filled. As such the parking capacity is insufficient during this period , particularly on the eastern side of the lake.

The lake features a network of built service roads, which forms 3 basic circuits. The main, so-called Tuchomyšl circuit, is currently being completed. It features a high-quality asphalt surface and is connected to all 4 area entrances. This circuit is designed for the use of integrated rescue system as well as area servicing. Its width ranges from 3 m to 5.5 m. The other 2 circuits and their connections feature a gravel surface and also serve area servicing and maintenance. The entry to all three circuits is restricted only for service vehicles.

In addition to these service roads there is a dense network of rural roads. They are unpaved strips approximately 4 m wide that were created for the planting and subsequent care of forests in the reclamation areas.

Pedestrian and bicycle transport

Cycling route 3009 passes the area surrounding Lake Milada to the west and south. It is suitable for families with children, due to its profile and difficulty. The route offers beautiful views of the Ore Mountains and is part of a system of cycle routes connecting the Ore Mountains, Central Bohemian Highlands and European Elbe cycle route.

From smaller settlements in the area, it is possible to reach the lake on lightly frequented roads or via field and forest roads. However, the connection for pedestrians and cyclists, especially from Ústí nad Labem and Teplice, is completely insufficient, which was also confirmed at the meeting with residents from the surrounding municipalities. The issue of connecting Ústí nad Labem and Milada is also addressed in the forthcoming Ústí nad Labem Sustainable Mobility Plan. In the past, the town of Trmice produced several studies on new cycle trails from Ústí through Trmice to Milada. However, specific interconnection projects are not yet ready.

Public transport

The serviceability of the area by public bus transport is not ideal; the stations are on average one kilometre from the lake and access to the lake is neither comfortable nor safe from them. The residents of the surrounding municipalities also expressed this opinion at a community planning event organised in January 2020. Poor public transport service provides an unwanted incentive for car use. There are 4 bus stops servicing the lake area:

- The Chabařovice, Hrbovice bus stop on the road from Chabařovice to Předlice is less than a kilometre away from the main beach. However,

part of the route to the lake requires walking along a relatively busy road. Bus lines 458 and 454, connecting Ústí nad Labem and Teplice, and line 450, which goes from Chlumec via Ústí nad Labem to Děčín, are operated there. These lines run approximately every hour during the week, and approximately every two hours on weekends. There is also the nightline 801 from Ústí via Chabařovice to Krupka, which operates during the week until 1 a.m. and until 6 a.m. on weekends.

- The Chabařovice racecourse bus stop is located less than a kilometre from the inner circuit around the lake from the north-west. Bus line 454 stops there (see above).
- The Chabařovice, Roudníky bus stop is located approximately one kilometre from Roudnice beach, and bus line 454 stops there as well.
- The Trmice, Lake Milada bus stop is located less than a kilometre away from Trmice beach. It is serviced by city bus lines 3 and 19, connecting Ústí nad Labem and Trmice. Lines 3 and 19 runs 1-4 times an hour on weekdays, and approximately every 2 hours on weekends. The operation of these lines is currently primarily based on the needs of the companies in the Trmice industrial zone and does not reflect any requirements for the recreational use of the area.

Railway

Lake Milada's surroundings are not currently directly served by any railway. However, the remnants of the Ústí nad Labem – Teplice – Chomutov track, which was cut by the Chabařovice quarry in the second half of the 19th century, extend into the competition site from the north-west and south-east. Remnants of this track in the direction from Ústí nad Labem end less than 200 m away from the lake's eastern shore, in the direction from Teplice the defunct line ends approximately half a kilometre from Milada's north-western shore.

The possibility of connecting Milada with Ústí nad Labem and Teplice through the remnants of the original tracks was frequently mentioned during the competition preparation. However, no official planning documents of the region or surrounding municipalities have yet addressed this topic. The question is whether there would be a demand for such a connection, what would be the number of passengers or what frequency of service would be required.

Based on a preliminary consultation with a railway transport expert, it would probably be technically optimal to produce a branch to Lake Milada from Trmice along the former coal railway (owned by PKP Cargo). The branch from Bohosudov would require the legislative transfer of today's siding (owned by the Railway Administration) to the national or regional railways and its thorough renewal. If the land of the Chabařovice transport station, which is now owned by a private person, were bought, it would be possible to bring the track closer to the lake from this side and create a shorter walking distance than today's 500 m.

Technical infrastructure of the site

Today, only one power line runs through the Lake Milada area, located in the area's north - western corner near the former Zalužany gatehouse with 110 kW of reserved input.

The Chabařovice steel plant is connected to a water supply pipe, the steel plant city is using pressure sewage, and high voltage lines and steel plant transformer stations are located at the competition site.

A central sewerage and water supply project in the area, which also includes electrical connections, is carried out at present however.

Implementation of the central sewerage and water supply project

The Statutory City of Ústí nad Labem began the preparation of the central sewerage and water supply project; its execution was later taken over by PKÚ. Its objective is to build basic technical infrastructure-sewerage, water supply and electrical distribution system in the eastern part of Lake Milada to enable the future construction of the main beach and marina facilities.

There are two parts to the central sewerage and water supply scheme. The first part of the project delivers the sewerage and water supply of the north-eastern part of the area adjacent to the main beach, and the second part provides the connection to the south-eastern part of the area, in particular the proposed marina.

Sewerage

The essence of both parts of the construction's technical solution is the development of a main, independent rainwater drainage and sewage disposal systems. The main sewerage lines will be built which will prepare the area for potential future development links. Any additional connections or extensions of the main lines are a matter for other, more detailed projects which will follow up on the final spatial design of the competition.

Using gravity sewage will flow to waste water pumping stations, and pumped from there out of Lake Milada area to the existing sewerage system , which leads to the central waste water treatment plant of Ústí nad Labem in Neštěmice. From part 1, waste water is discharged into the Chabařovice–Předlice sewage system, the total capacity is proposed for a total of 970 PE. From part 2, waste water is discharged into a sewage system located at the intersection of Edisonova and Na Rovném streets, the total proposed capacity is 260 PE.

Rainwater is gravity-drained into rainwater tube retention tanks, from where it is discharged outside Lake Milada area. Part 1 drainage leads to Ždírnický stream, part 2 pipes will be connected to Lake Milada's piped discharge facility. The maximum discharge of rainwater into Ždírnický stream will be limited to 50 l/s, and the maximum rainwater discharge into Lake Milada's piped outlet facility will be limited to 10 l/s.

Water supply

Drinking water will be supplied to the north-eastern part of the area (part 1) by means of a 90 mm diameter water supply connection pipe, which begins by connecting it to the existing connection at the PKÚ premises. In addition, drinking water is distributed in every sewerage branch through a pipe with a diameter of 80 mm.

A new water supply system will be built in the south-eastern part of the area (part 2) – a pipe with a diameter of 90 mm for the area of the planned marina facilities. The 80 mm diameter pipe will continue into the Trmice beach area.

Electric power distribution systems

In Part 1 of the central sewerage system for waste water pumping stations and other potential customers, a new high - voltage link (22 kV), new transformer station (22/0.4 kV – 250 kVA), and low - voltage distribution systems will be installed.

From the current transformation and distribution station at the fly ash pond, a low - voltage link with a maximum power of 200 kW will be brought into the proposed marina area at the south - eastern tip of the lake.

Management of Lake Milada area

Palivový kombinát Ústí, s. p. manages and maintains the entire reclaimed area of Lake Milada except for the forests that were transferred to Lesy České republiky, s. p.

The main maintenance activities include:

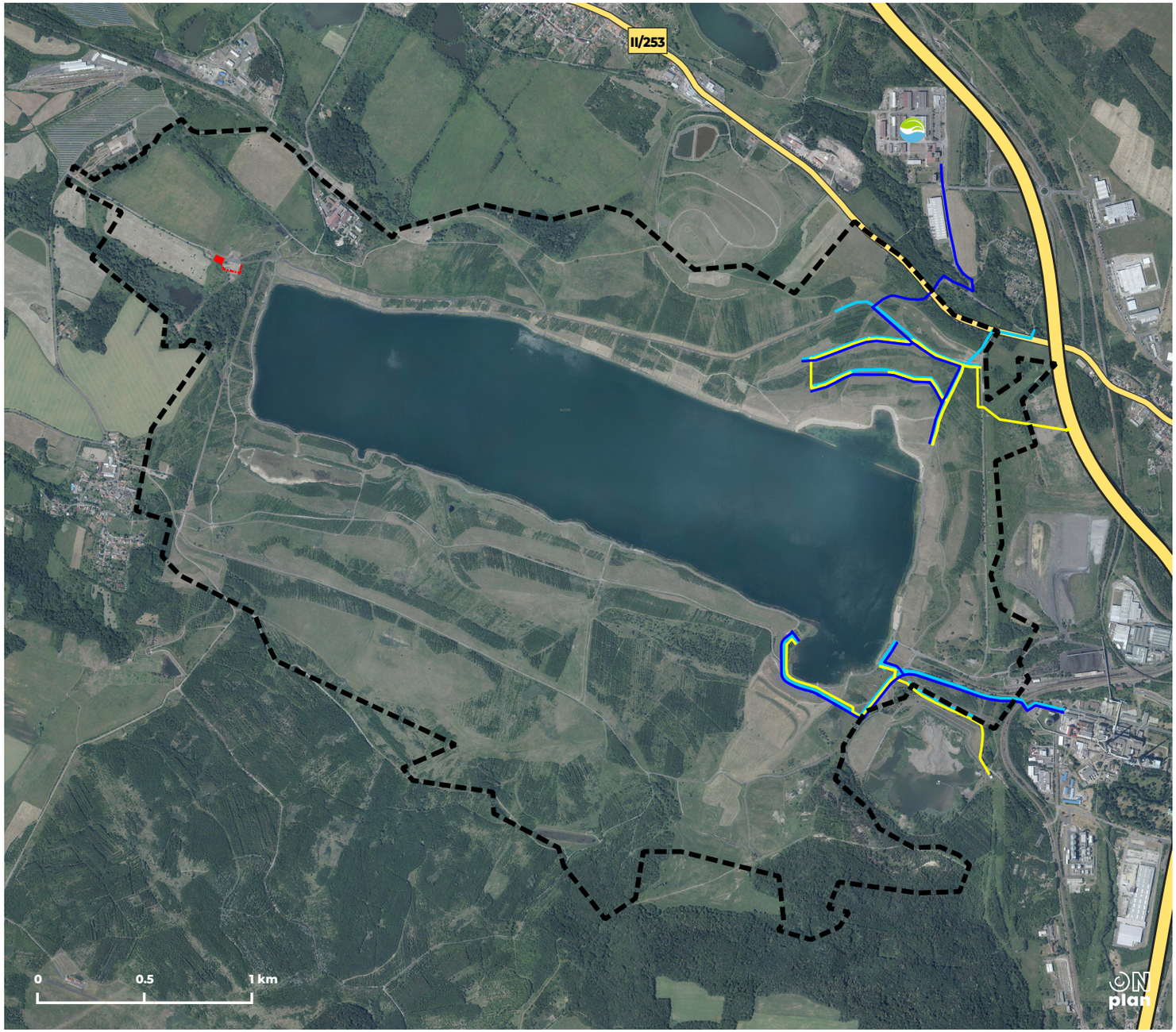
- road maintenance and repair, including repair of traffic and information signs,
- ensuring the functionality of the area's drainage and stabilisation system,
- maintenance of street furniture and other public space amenities,
- maintenance of grassed areas – especially grass mowing, landscaping of grassed areas damaged by wild animals,
- maintenance of forest covers, groups of trees and shrubs – especially cut-outs in stands, removal of windthrows, removal of self-seeded trees,
- provision of public toilets,
- waste removal,
- area security guarding.

In 2019, the administration and maintenance costs borne by PKÚ for the Lake Milada area reached CZK 10 million. Those costs do not include either mine water pumping or geological monitoring.

SITE INFORMATION

Diagram of the technical infrastructure

- competition site
- sewerage system (under construction)
- water pipes (under construction)
- electrical connections (under construction)
- existing electrical connections
- seat of PKÚ, s. p.



Transport infrastructure diagram

- competition site
- main road network
- asphalt service roads
- gravel service roads
- P3 parking area
- B bus stop
- main entrance to the site
- remains of a railway
- seat of PKÚ, s. p.

LIMITATIONS OF THE AREA USE

Environmental limitations

Valuable natural habitats

Act No. 114/1992 Coll., on nature and landscape protection

There are no specially protected areas defined in the competition site, however during a biological survey (2019 - 2020) the occurrence of specially protected organisms has been confirmed. Based on this survey, biologically valuable locations have been selected in the area of Lake Milada, which currently serves as natural bio-centers with higher species concentrations, particularly those specially protected, as well as other species.

Within these habitats there are more suitable conditions for reproduction than in the surroundings – places for nesting, laying, conditions for the development and successful rearing of the young. Furthermore, there is plenty of food, plenty of shelter, etc. Overall, it can be stated that the designated natural habitats serve as a “source” of species (particularly the specially protected), from where they spread to near and remote surroundings and ensure biodiversity of entire Milada area. A negative impact on these natural habitats would make numerous populations much more fragile, not only within Lake Milada, but also in the entire area of Ústí nad Labem, and the potential for many species ‘ (particularly specially protected) permanent existence and prosperity would probably decrease.

The following biologically valuable localities were selected in Milada’s vicinity:

1. shore reeds and accompanying vegetation on the lake shores priority groups: birds (water birds, herons (Ardeidae), rails (Rallidae), wagtails (Motacillidae), titmouse (Panuridae), etc.), amphibians, reptiles, aquatic macrophyte stands,

2. eutrophication reduction tank
priority groups: amphibians, birds (waterfowl, songbirds, herons (Ardeidae), wagtails (Motacillidae), thrushes (Turdidae), titmouse (Panuridae), etc.), reptiles, aquatic macrophyte stands,

3. locality “Heaven” at the hill
priority groups: amphibians, birds (songbirds, herons (Ardeidae), wagtails (Motacillidae), thrushes (Turdidae), etc.),

4. overgrowing meadows at the chemical “spoil tip”
priority groups: birds (predators, rails (Rallidae), wagtails (Motacillidae), titmouse (Panuridae), thrushes (Turdidae), etc.), amphibians, reptiles,

5. locality “Trhák”
priority groups: birds (waterfowl, larks (Alaudidae), wagtails (Motacillidae), titmouse (Panuridae), thrushes (Turdidae), warblers (Sylviidae), etc.), reptiles.

In general, all area development plans must be consulted with relevant environmental and landscape protection authorities.

Diagram of the natural limitations

competition site

water bodies

forest land

close to original nature and valuable biotopes

1 shore reeds and accompanying vegetation on the lake shores

2 eutrophication reductionl tank

3 locality “Heaven” at the hill

4 overgrowing meadows at the chemical “spoil tip”

5 locality “Trhák”

Forest

Act No. 289/1995 Coll., on forests

The newly established forests on the Lochočická and Žichlická dumps were transferred to the category of lands fulfilling the forest function. The forests on the inner dump, western and eastern slopes managed by PKÚ, were transferred to the category of special purpose forests – protective forests.

As part of the reclamation, new forests were established on the total area of 329 ha. In the southern part of the area to be resolved, PKÚ has already completed its cycle of post-planting care, with the forests transferred in the real estate cadastre to the category of land fulfilling the forest function and handed over to the administration of the Lesy České republiky state enterprise as commercial forests. According to the Forest Act, management rules are set for all forested lands. It is necessary to negotiate with the relevant authorities about the potential non-forest use of these lands and obtain the necessary permits.

Lake, water bodies and watercourses

Act No. 114/1992 Coll., on nature and landscape protection

In addition to Lake Milada itself, there are a number of water areas, wetlands and watercourses on the site and in the area of interest, which are important landscape elements by law and as such are protected by law against damage and destruction. Their use is only possible if it does not reduce their eco-stabilising function within the landscape.

Technical limitations

Protected deposit area (mining area)

Act No. 44/1988 Coll., on the protection and use of non-renewable resources (hereinafter the Mining Act)

The area under the lake has been completely excavated and is, therefore, not part of the protected deposit area. However, in the northern, western and eastern parts of the area adjacent to Lake Milada there are still large protected deposit areas of high-quality lignite – the Chabařovice, Chabařovice I, Chabařovice II, Modlany and Varvažov protected deposit areas. Palivový kombinát Ústí, s. p., in accordance with the Mining Act, ensures the protection of these exclusive lignite deposits. At the same time, PKÚ ensures the reclamation of the former Chabařovice quarry area and all its related areas. On the one hand, PKÚ is responsible for safeguarding the protected deposit areas assuring future possibility of lignite mining, on the other hand, it should ensure the meaningful and conceptual use of the reclaimed areas and their connection to the surroundings. Balancing these seemingly conflicting tasks is not easy.

According to the Mining Act, the mining of exclusive coal deposits may only be prevented or hinder in specially justified cases, if it is an extremely important construction or facility or if the construction or facility will make it difficult or impossible to mine only a small amount of exclusive deposit reserves. The placing of buildings into a protected deposit area is subject to the district mining authority's approval.

PKÚ is preparing the reduction of the Chabařovice I and Chabařovice II protected deposit areas in the lake's eastern part. PKÚ is negotiating this and will continue to negotiate it with state administration bodies, in particular the District Mining Authority, Ministry of the Environment and Ministry of Industry and Trade of the Czech Republic. According to the Mining Act, the write-off of deposits is generally only possible if "the extraction of deposits would endanger general interests protected by law, in particular, environmental protection, and the importance of protection exceeds one's interest in extracting these deposits". In principle, it is the assessment of the weights of various public interests in the area – protection of quality lignite deposits, protection and improvement of the environment, sustainable development of the region, etc.

Old mining work, undermined area

Act No. 44/1988 Coll., on the protection and use of non-renewable resources

Act No. 61/1988 Coll. on mining activities, explosives and state mining administration

Since the 18th century, deep lignite mining has taken place in the entire Lake Milada's area of interest. The Chabařovice quarry spread over a large part of the original mining works. However, the remains of the old mining works, which are registered by law, are still outside the area of the original Chabařovice quarry. The area with the occurrence of old mining works is defined as an undermined area, it occupies the entire area to be resolved and its surroundings.

The area where the remains of horizontal mining works (corridors, galleries) are located, sometimes even on several floors above each other, should primarily be perceived as a technical limitation during facility founding. In the Chabařovice area, however, the old horizontal works manifestations are negligible. On the other hand, it is necessary to independently resolve so-called main mining works, i.e., vertical mining works that reach to the surface (for entrance to the deposit, delivery of coal to the surface, or for corridor space ventilation). Above the main mining work, a so-called pit ditch (concrete slab with its cover) has been set up, which secures this work. In the vicinity of the main mining work, a safety zone is established, where the placement of constructions is permitted if the mining authority issues a positive opinion on the construction. A safety zone is determined for each work separately, but it usually reaches 10 m in diameter from the pit centre. These mining works must be secured, fenced and regularly inspected.

Geologically unstable and landslide areas

As mentioned above, after the premature mining termination the residual quarry pit was located in a place with very unfavourable mining-technological and hydrogeological conditions. With regard to this, it was necessary to implement extensive preventive renovation measures within the reclamation leading to the area's stabilisation (drains, stabilisation benches, pile walls, etc.). It was necessary to continuously resolve a number of emergency situations via technical measures – slips, landslides, breaches and other partial manifestations of the area instability. The integral part of technical measures to ensure stability is the area drainage system using a network of ditches and drains, which are led into the lake. The densest network of ditches and drains is in the northern and south-eastern parts of the area.

Unstable and landslide areas are defined in the area, i.e., areas unsuitable for any facility foundation. It is necessary to follow the implemented technical measures ensuring the geological stability of the area and built drainage system.

Environmental contamination

Chemical waste landfill

The production at Spolek pro chemickou a hutní výrobu started in 1857. The chemical plant's increasing waste had to be stored. The site was chosen in the depressions resulting from deep coal mining at the Na Běhání locality; the landfill was founded in 1905. Along with the chemical waste from Spolchemie, ash, slag, residues of chemical fertilisers from state farms and agricultural cooperatives, waste from industrial and oil accidents throughout the Ústí nad Labem district and others were transported to the landfill. A total of 3.5 to 4.5 million m2 of waste was deposited in the landfill of 42 ha until the end of its operation in 1993.

In the 1990s, the landfill was decontaminated. Its slopes were modified, a drainage system was built to drain surface water to one location at the Petri pond, where it is cleaned. To direct the groundwater flow, submerged walls were built to a depth of up to 14 m. The surface of the treated landfill body is grassed, the entire area of the reclaimed landfill is fenced. PKÚ, s. p. regularly monitors the quality of surface waters and groundwater on the entire northern slope adjacent to the chemical heap. Its analysis results indicate that the works performed prevented any leakage of hazardous substances towards the south, i.e., towards the Chabařovice lake, and the drainage system is currently functional. The entire landfill area is fenced.

Ash pit and sludge pond of the Trmice heating plant

The Barbora sludge pond connects to the area to be resolved from the south-east. In the east the area to be resolved connects to the 5th of May stabiliser repository.

The gradual greening of the heating plant will also affect these operations in the future. ČEZ, a.s. is currently implementing its project for the technical reclamation of the former 5th of May mine. The final biological reclamation should take place around 2035. According to the project, the final phase of reclamation should be the establishment of steppe communities, which will complement the range of habitats in the newly created landscape around Milada.

In the future, ČEZ, a.s. also expects to terminate the operation of the sludge pond. However, this plan is related to a change in technology in the operation of the heating plant – dry slag collection project, which is currently in its planning phase. The sludge pond reclamation project is, therefore, not yet under preparation, and it is not possible to determine the time period in which the sludge pond reclamation will take place, nor specify the type of reclamation or its potential other use.

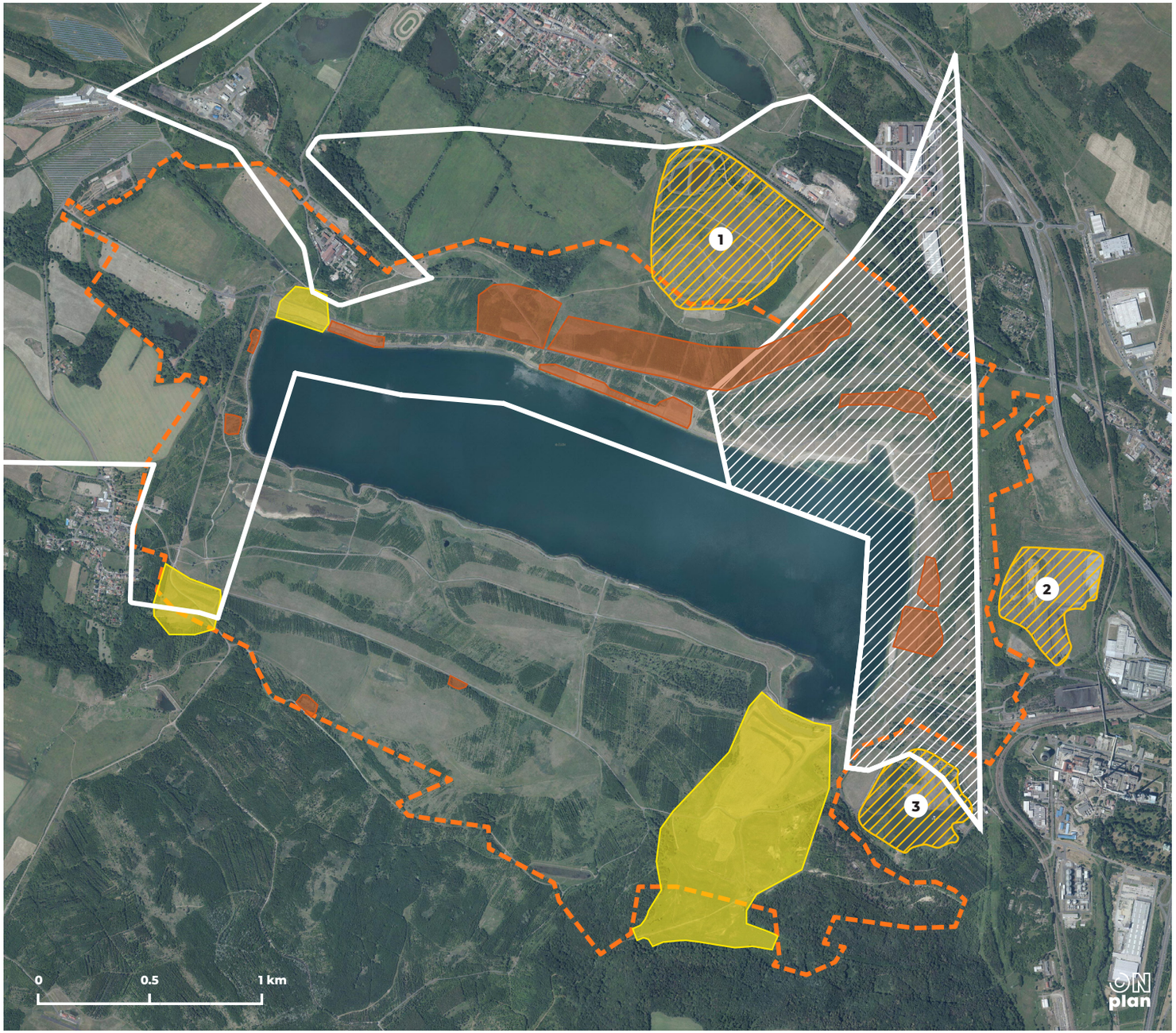


Diagram of the technical limitations

- competition site
- landslide area
- unstable area
- protected peposit area border
- discussed reduction of the protected deposit area
- environmental burdens
- 1 chemical waste landfill
- 2 ashfield
- 3 sludge pond

THE FUTURE OF THE SITE

Investment plans

Pumped hydroelectric energy storage (PHES)

Palivový kombinát Ústí, s. p. commissioned, on the basis of the assignment of the Government of the Czech Republic, to prepare technical and economic preliminary feasibility studies for the construction of new pumped hydroelectric energy storage (PHES) in the locations of current and former lignite quarries. This contract also includes a study of a PHES in the Lake Milada locality. The study will be submitted to the Czech Government for its decision on further action by the end of 2020.

The technical solution for the PHES in the Lake Milada area includes major installations that affect the competition site's southern part. Those installations are:

- the upper reservoir is proposed north-west of Rovný peak (at an elevation of 377.60 m above sea level). The space for the reservoir should be obtained by excavating the terrain and filling the perimeter dam with a trapezoidal profile of 10.00 m height. The dam embankment is designed of stony material obtained by extraction on the site.
- The high-pressure water supply is proposed as one steel pressure feeder with the diameter of 2.8 m and length of approx. 1.8 km located under the terrain surface.
- The machine room with its necessary technological equipment is proposed on Milada's southern shore in an above-ground building measuring approximately 50 × 25 m and a total height of 36.3 m, of which approximately 15.5 m is above ground. The building is proposed as a prefabricated reinforced concrete skeleton with infill masonry. In the vicinity of the machine room building, the following facilities have also been proposed: transformer building measuring 15 × 7 m and height of 8 m, situated parallel to the machine room building at a distance of 10 m, adjacent to an encapsulated substation building measuring 10 × 10 m and height of 8 m, and a power plant control building measuring 20 × 15 m with 10 m height.
- The power output is based on a simple 110 kV line from the Koštov switching station located at a distance of approx. 2.5 km. A substantial part of the output line is proposed to be underground. The protection zone of the corridor is proposed to be 31 m wide.
- Access to the machine room and the upper reservoir is proposed through 2 new service roads connected to the Lake Milada entry point at Trmice.

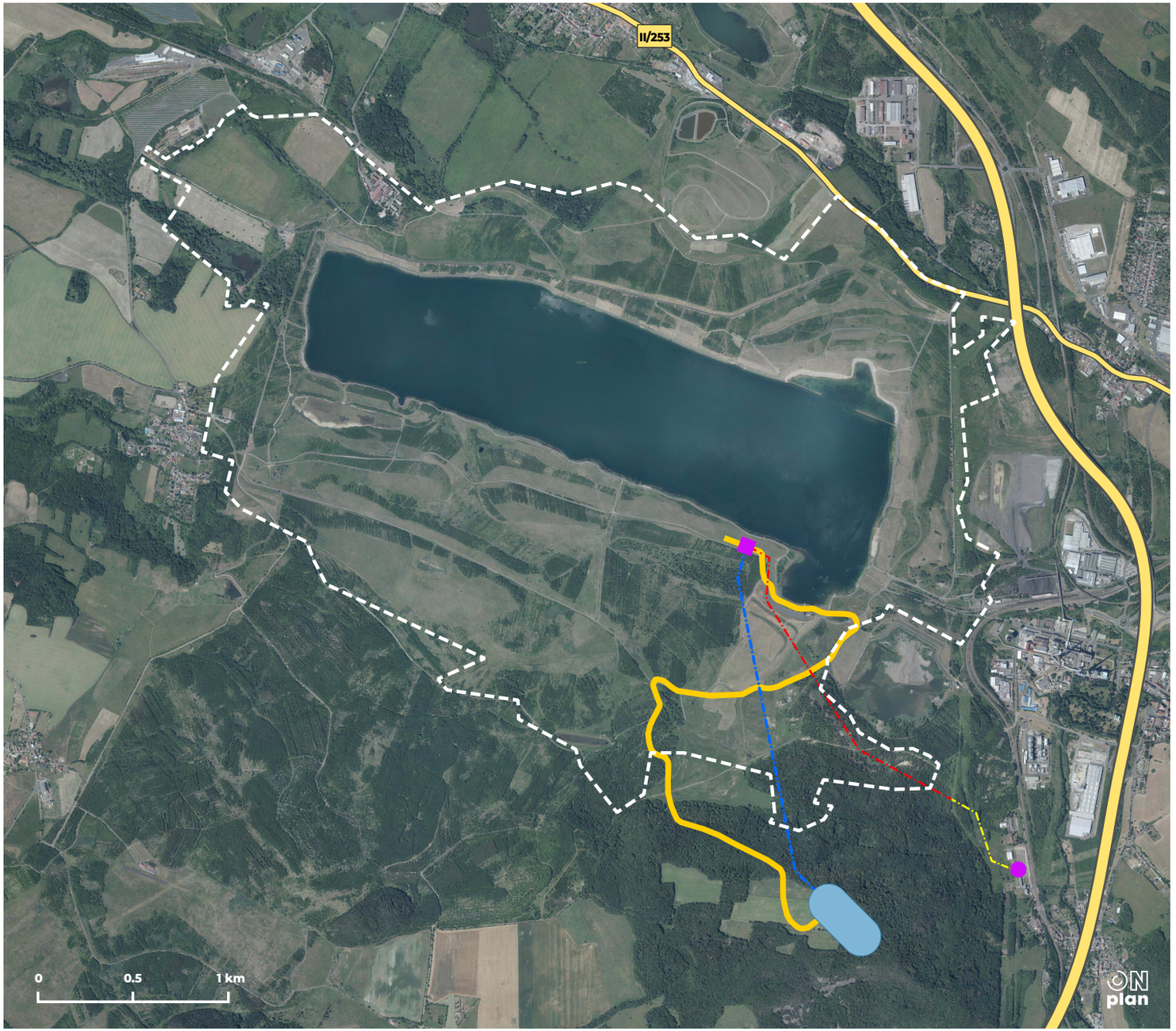


Diagram of the pumped hydroelectric energy storage (PHES)

- competition site
- upper reservoir
- water feeder
- engine room and related equipments
- high voltage underground cable
- high voltage line
- Koštov electrical sub-station
- service road

SITE INFORMATION

Milada Water rescue service centre

The reason behind the construction of a water rescue service base on the shore of Milada is to ensure visitors to the lake are safe as the Ústí region's Medical Rescue Service is on longer driving distance. Before the arrival of an emergency vehicle or air rescue service helicopter, the water rescue service may provide first-response medical aid.

The construction investor is the Water Rescue Service, the project shall be implemented by 2020/2021. The base will be constructed on lot No. 178/1 in the Tuchomyšl cadastral sector, in the western part of the bay near the site where the marina will be built. The basic criteria that had to be taken into account for the location of the base were mainly: suitable weather conditions, i.e., leeward for a lifeboat operation in the water area, overview of most of the lake area, existing access to water to launch a boat on the surface, a nearby port and visitors' beaches. An important aspect was also the availability of engineering networks, currently in construction, in the locality and compliance with the valid spatial plan of the city of Ústí nad Labem. A fundamental requirement was the link to the main road network, which is crucial for accessing and reaching the integrated rescue system (emergency medical service, fire brigade, police). Six on-duty rescuers will run the station, 24 hours a day , 7 days a week in the summer and ad hoc in the winter season. The architectural study of the building proposes a simple structure of six U-shaped modular cells with a residential terrace with a total estimated dimension of approximately 12 × 12 m and a height of 3m. According to the investor's representatives, the building may change during the subsequent design works.

Nové Vyklice

Shortly after the end of coal mining in the Chabařovice quarry, the Vyklice Citizens' Association was established in 1998, with the dream of restoring the defunct municipality of Vyklice. The Association not only gained Chabařovice's active support but also the sympathy of the then Ústí region representatives. In 2000 the city council of Chabařovice approved the plan to restore the defunct settlement of Vyklice. Thanks to the determination of the Association and the support of Chabařovice, the land in the vicinity of the steel plant, which originally belonged to the state, was transferred to Chabařovice. An urban study was prepared, and several potential variants for the location and appearance of the new settlement were examined. However, the Nové Vyklice project did not succeed, primarily due to the protection of natural resources, as a whole. The change in the Chabařovice spatial plan discussed an option in which the steel plant premises were defined as a redevelopment area, and the adjacent land, which does not encroach on the protected deposit area, is a buildable area for civic amenities and mixed-use function including housing.

The expansion of today's defined buildable areas in the vicinity of the Chabařovice steel plant may only be considered with regard of the protected deposit area. It is always necessary to consider specific ideas about the possible further development of the area and its importance in a broader context with the public interest in the protection of natural resource.

Diagram of ownership and limitations at Chabařovice steelworks

Public participation

The competition brief was prepared in cooperation with key stakeholders of the area and with direct public engagement. Between January and April 2020, a working group consisting of the representatives of PKÚ, the competition organiser ONplan, city and municipal councils of Ústí nad Labem, Chabařovice, Trmice and Řehlovice, representatives from the Ústí Regional Authority and other experts on spatial development related topics met five times to formulate the shared vision of the Milada Lake area and discuss the competition brief.

On 30 January 2020, a planning meeting was held with key regional stakeholders and later on the same day also with residents and members of the public. The objective of this meetings was to discuss values that need to be preserved, identify issues which should be solved and collect needs of different visitor groups and suggestions for activities to take place in the Lake Milada area.

On 17 February 2020, a follow up meeting was held with both groups to consult the working version of the Shared vision for Lake Milada and the draft of the competition brief. Reports from public consultations are available at www.vizemilada.cz. All obtained comments were processed and when agreed by the working group incorporated into this Competition Brief.

Ideas for Milada

Several inspiring suggestions for the development of Lake Milada emerged during meetings with stakeholders and the public, some of which are listed here:

- Milada could pilot smart solution that will allow sports and recreational use, inclusively for people with reduced mobility and orientation, even beyond the legal requirements. Barrier-free toilets, showers, water access, barrier-free access to refreshments and accommodation should be available around the lake in sufficient quantities and at acceptable distances. There could also be sports facilities at Milada for people with limited mobility and orientation, e.g. facilities for renting and storing specially adapted boats, kites, diving equipment, hand bikes, paddleboards and table tennis, basketball and pétanque equipment. The architecture of public spaces around Milada could also provide the opportunity for the disabled to organize larger sporting events.
- There should also be facilities at Milada for cold water swimmers who visit Milada regularly –in particular changing cabins at selected beach.
- Saunas with refreshments could be installed at the lake.
- A nudist beach might be designated on some of the shores of Milada.
- For Lake Milada, it would be good to come up with “something extraordinary,” such as the opportunity to access the clear , high-visibility water without diving, for example, using glass that shines and attracts fish (not shy as fishing is not permitted), a glass-bottom boat, diving bells, capturing underwater life and screening it on the shore.
- A center of interpretation – house of nature, technology and history –could be established in the area around Milada, for example, in Trmice Château or the historic buildings of the Trmice heating plant or the Chabařovice steel plant.
- Birds and waterfowl observatory could be set up on the southern slopes above Milada, and an educational trail connected to nature and extinct villages could also be created.
- In the vicinity of Milada, forest kindergarten facilities could exist, lake accommodation facilities could be used for suburban camps and outdoor schools.
- A shared space in nature for one’s work might be a complement to Milada ‘s recreational purpose.

vizemilada

LAKE MILADA, INTERNATIONAL LANDSCAPE, URBAN AND ARCHITECTURAL DESIGN COMPETITION, Design Brief

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