

Mirotski Lakes:

Barrier-Free Recreation and Recovery

Bucha Community • Village of Mirotiske • Kyiv Region

CHALLENGE OWNER

Bucha Community

PILOT

First phase at Mirotski Lakes

MUNICIPAL ESTIMATE

Approx. UAH 87 million

THE CHALLENGE QUESTION

How can Bucha turn its proposed first phase at Mirotski Lakes into a safe, barrier-free, environmentally responsible and financially manageable pilot that supports recovery, recreation and community life?

The municipal challenge

Bucha Community proposes transforming the partly natural and currently difficult-to-access Mirotski Lakes area into a modern inclusive recreation and wellbeing destination. The community wants the site to support recovery and socialisation for military personnel and people affected by war, provide everyday recreation for residents and support domestic tourism.

The challenge is to turn this community ambition into an implementable first phase that combines landscape, architectural, engineering and construction solutions, barrier-free access, environmental protection, operation and finance in one coherent project.

WHEN THE WORK IS DEVELOPED

No drawings, analysis, budgets or other solution materials are required before the hackathon. Participants review the challenge and bring relevant expertise; teams develop every component described below during the hackathon with community and mentor input, then present one integrated proposal.

01 MUNICIPAL REQUEST

Why Bucha is proposing this project

Bucha Community has lived through occupation and major destruction. According to the concept submitted by the community, it now has more than 70,000 residents, including around 12,000 internally displaced people, as well as a significant number of veterans and people affected by the war. Demand is growing for accessible natural places for recovery, social interaction and everyday recreation.

The Mirotski Lakes are located in the village of Mirotske within Bucha Community. Their proximity to Kyiv and regional transport connections creates potential to serve local residents while also attracting visitors from the wider Kyiv region.

The community's long-term vision

The concept submitted by the community brings together the following elements, which define the ambition for the site:

AREA	COMMUNITY STARTING CONCEPT
Landscape & access	Barrier-free eco-trails, bridges and viewing platforms; cycling and walking routes; shoreline improvement and ecological restoration.
Recreation	An outdoor pool, children's play areas, camping, pavilions, picnic and BBQ areas, fishing zones and rental services for active recreation on the water.
Buildings & services	Modular inclusive eco-houses, an administrative and visitor centre, a multifunctional interaction and leisure centre, parking and basic visitor services.
Green systems	Solar energy and storage, energy-efficient engineering systems, modular prefab construction, low-carbon materials, water collection and reuse, and nature-based ecosystem protection.
Local economy	Space for craft producers and farmers, fairs and events, seasonal cafés, local tourism, services, transport and new employment.

Connected to wider community development

The community links the lakes project with planned social rental housing in Mirotske — 160 apartments for approximately 264 people — and the development of industrial parks with the potential to create up to 4,000 jobs. Together, housing, employment and recreation are intended to support population growth and a better living environment.

02 PILOT TO DEVELOP

The community's proposed first phase

Bucha has identified a first development phase for the recreational area. The community's proposed starting scope includes:

1. **Site planning and engineering.** Define the spatial structure and engineering approach for the pilot area.
2. **Barrier-free landscape access.** Create eco-trails, viewing platforms, cycling routes and walking routes.
3. **Modular accommodation.** Develop inclusive modular eco-houses as part of the pilot concept.
4. **Renewable energy.** Integrate renewable-energy systems that improve efficiency and operational autonomy.
5. **Basic recreation infrastructure.** Establish the essential recreation areas and services needed for the pilot to function.

COMMUNITY DELIVERY STARTING POINT

The community's initial estimate for the first phase is approximately UAH 87 million, with community co-financing envisaged. Bucha proposes that the Municipal Enterprise 'Bucha Regional Development Agency' manage and maintain the project through operating income, with possible municipal budget support.

Open task for hackathon teams

During the hackathon, develop an integrated concept that makes this first phase spatially coherent, technically credible, environmentally responsible and realistic to build, finance and operate. The proposal should refine the community's starting scope and clearly explain which elements should be adjusted, relocated, phased differently or postponed.

The team is not being asked for an abstract waterfront vision or a separate clinical rehabilitation programme. The task is to create the landscape, architectural, engineering, construction and delivery logic for this specific municipal pilot.

Key decisions the proposal must resolve

- What are the realistic boundary and spatial structure of the first phase?
- Which lake, shoreline and habitat areas require protection, restoration or restricted access?
- How will people of different ages and abilities reach, navigate and use the site safely?
- Which recreation, recovery, community and tourism activities belong in the first phase?
- Where and at what scale should modular houses, visitor services, parking and utilities be located?
- How will the pilot be constructed, operated, maintained, financed and monitored over time?

03 WORK DURING THE HACKATHON

What your team will develop

DEVELOPED DURING THE HACKATHON

The following six components form one integrated proposal. Teams develop them during the hackathon using the community's starting concept, available site information, consultations and support from mentors and community representatives.

1. **Pilot site plan and zoning.** Define the first-phase boundary and show protection, restoration, quiet-use, active-recreation, accommodation, service, access and parking zones. Make clear which areas remain undisturbed.
2. **Landscape, access and user concept.** Show the spatial logic for trails, bridges, viewing points, shoreline treatment, water access, recreation areas, wayfinding and safe barrier-free movement. Identify priority users and activities.
3. **Architectural, construction and engineering concept.** Develop concept principles for modular eco-houses and essential visitor structures; propose appropriate prefab or low-impact construction solutions, materials, foundations, renewable energy, water supply, drainage, sanitation, waste management and emergency access.
4. **Ecology and visitor management.** Explain how the proposal protects water quality, habitats, flora and fauna; addresses erosion, lighting, noise and seasonal change; and manages visitor pressure and water-based activities.
5. **Operation and economic model.** Define the role of the Bucha Regional Development Agency and other partners; set out maintenance, services, local-business participation, operating costs, realistic income sources and any continuing community support.
6. **First-phase delivery pathway.** Set priorities, indicative quantities and cost ranges, implementation stages and timetable; identify permissions, surveys and decisions needed next; show funding and partnership options, risks, monitoring indicators and later scaling.

Expected level of development

LEVEL	WHAT THIS MEANS
Expected	Concept plans and zoning diagrams; representative sections, details or system diagrams; design and construction principles; indicative quantities and cost ranges; an operating and implementation model sufficient to test feasibility.
Not required	Field surveys, complete permit documentation, detailed working drawings, a final bill of quantities or other full technical documentation. Where evidence is unavailable, identify the gap and the next required study.

The final project should be packaged and presented in the format established by the official Rebuild Green Hackathon 2026 Rules. The Rules govern submission format; this brief defines the Bucha challenge-specific work.

04 CONSIDERATIONS AND SUCCESS

People and partners

GROUP	CHALLENGE-SPECIFIC ROLE
People the place should serve	Local residents; military personnel and veterans; people affected by war; internally displaced and newly settled residents; families with children; older people; people with disabilities; and visitors from Kyiv and the wider region.
Actors needed to deliver it	Bucha Community; the Bucha Regional Development Agency; community organisations; landscape, ecology, water, accessibility, architecture and engineering specialists; construction and technology partners; service and tourism operators; local businesses; donors and investors.

Practical constraints and questions to verify

- The pilot boundary, land and ownership conditions, access rights and infrastructure connections — information is provided by the municipality.
- Hydrology, water quality, biodiversity, protected areas, shoreline stability and seasonal conditions require reliable evidence.
- Accessibility and visitor safety must be achieved without excessive hard construction or damage to the lakes and habitats.
- The need and scale of accommodation, an outdoor pool, parking, visitor buildings and water activities must be justified by demand and the site's carrying capacity.
- Sanitation, drainage, waste management, energy supply, emergency access and maintenance must work in real operating conditions.
- Tourism and commercial activity must support — not restrict — public access and the community purpose of the project.
- The UAH 87 million estimate, operating-income assumptions and long-term affordability should be tested and refined.

05 EXPECTED OUTCOME

Starting material and support during the hackathon

- The project concept submitted by the community, including the proposed programme, first-phase scope, initial general plan and UAH 87 million estimate.
- The project profile in the DREAM public investment management system.
- Available location and site materials, together with consultation from Bucha representatives during the hackathon.
- Where information is incomplete, teams should record the assumption and identify the survey, evidence or community decision required next.

What a strong hackathon result will provide

A DECISION-READY FIRST PHASE

Bucha should receive a coherent proposal that shows what to build and protect first, how the main systems work together, what the pilot is likely to cost, who will operate and maintain it, which information must be confirmed next, and how implementation can move forward.

Pilot potential

Within one to three years, the project should be capable of moving toward a first implemented phase with accessible routes, essential recreation infrastructure and visitor services, ecological safeguards, modular solutions and renewable energy where justified, a responsible operator and a funded maintenance model.

If successful, the pilot can demonstrate how other Ukrainian communities can combine recovery, barrier-free access, nature protection and local development around lakes, rivers, reservoirs and waterfronts without creating infrastructure that is unmanageable or environmentally damaging.

Municipal project source: DREAM-UA-170225-B641719B • <https://dream.gov.ua/ua/project/DREAM-UA-170225-B641719B/profile>