PROSPECTS FOR THE USE OF WATER RESOURCES OF THE MANEVYTSIA UNITED TERRITORIAL COMMUNITY OF THE KAMIN-KASHIR DISTRICT OF THE VOLYN REGION OF UKRAINE IN RECREATIONAL ACTIVITIES

ПЕРСПЕКТИВИ ВИКОРИСТАННЯ ВОДНИХ РЕСУРСІВ МАНЕВИЦЬКОЇ ОБ'ЄДНАНОЇ ТЕРИТОРІАЛЬНОЇ ГРОМАДИ КАМІНЬ-КАШИРСЬКОГО РАЙОНУ ВОЛИНСЬКОЇ ОБЛАСТІ УКРАЇНИ В РЕКРЕАЦІЙНІЙ ДІЯЛЬНОСТІ

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Abstracts

The purpose of the study is to assess and analyze the water resources of the Manevytsia united territorial community of Kamin-Kashyrskyi district of the Volyn region, in particular rivers, ponds and lakes with the further prospect of using them in certain types of recreational activities based on morphometric indicators.

The research methodology is based on a comprehensive analysis of the water resources of the Manevytsia united territorial community, including rivers, ponds and lakes, in order to assess their recreational potential. For this purpose, morphometric and hydrological indicators of water bodies, as well as their qualitative characteristics, were used. The study includes an analysis of statistical data on the number and area of water bodies, their volume and depth. Results: the study revealed that the territory has significant water resources, in particular 18 rivers, the largest of which are: Styr – 54.81 km, Osyna (Stokhid-Yasynya) – 22.39 km, Cherevakha – 29.45 km, Okonka – 26 km, Chernyavka (Chornyavka) – 17 km and Pidgorodets – 13.93 km. Reservoirs of artificial origin, ponds – 112, the total area of the water mirror of which at the NPR is 442.88 hectares, the total volume is 4051.4 thousand m^3. The largest among them are located in the settlements: the village of Hradysk, the village of Kostyukhnivka, and in the village of Manevichi. Ponds play a decisive role in the formation of the recreational potential of territories. They provide a wide range of opportunities for active and passive recreation, contributing to the physical and psychological well-being of a person. With proper arrangement, ponds can become attractive tourist attractions, which contributes to the development of the region. The total number of lakes is 12, the surface area is 93.55 hectares. The most attractive and largest among them are lakes Lisovskoe – 23.75 hectares and Vino – 18.5 hectares. The deepest lakes include Vino, Zasvinske (Zasvidske), Ozertse (Khidcha). The total volume of water mass is 1231.9 thousand m^3. A significant part of it falls on the lakes: Vino – 410 thousand m^3, Lisovskoe – 330 thousand m^3, Cherevakha – 28 thousand m^3. Most of the studied reservoirs are characterized by the necessary and favorable conditions for organizing certain types of recreational activities on their basis. The article develops a comprehensive approach to assessing the recreational potential of reservoirs. Based on the generalized parameters and characteristics of water bodies, criteria were determined that allow assessing the suitability of water bodies for various types of recreational activities.

Conclusions. The study revealed a significant recreational potential of the water resources of the territory, which includes rivers, ponds and lakes, suitable for various types of recreation. Based on an integrated approach and developed assessment criteria, the possibilities of using water bodies for recreational activities were determined.

The obtained generalizations are the basis for developing measures for the rational use, protection and preservation of the natural resource potential of water bodies (rivers, ponds, lakes), developing long-term plans for their effective use, substantiating an action strategy for the protection of unique water bodies, in particular for the preservation of landscape and biotic diversity. In addition, the results of the study can be

used for planning and organizing recreational activities taking into account the characteristics of specific water bodies. The use of water resources with other natural factors can become a key direction in the development of recreational activities.

Keywords: river, lake, pond, water body, recreational activity, natural resources, recreation, tourism.

Метою дослідження є оцінка та аналіз водних ресурсів Маневицької об'єднаної територіальної громади Камінь-Каширського району Волинської області, зокрема річок, ставків та озер, з подальшою перспективою використання у певних видах рекреаційної діяльності на основі морфометричних показників.

Методологія дослідження ґрунтується на комплексному аналізі водних ресурсів Маневицької ОТГ, включаючи річки, ставки та озера, з метою оцінки їхнього рекреаційного потенціалу. Для цього використано морфометричні та гідрологічні показники водойм, а також їх якісні характеристики. Дослідження включає аналіз статистичних даних про кількість та площу водних об'єктів, їхній об'єм та глибину. Результати: дослідження виявило, що територія має значні водні ресурси, зокрема 18 річок, найбільші з яких: Стир – 54,81 км, Осина (Стохід-Ясиня) – 22,39 км, Череваха – 29,45 км, Оконка – 26 км, Чернявка (Чорнявка) – 17 км та Підгородець – 13,93 км. Водойм штучного походження, ставків – 112, загальна площа водного дзеркала яких при НПР становить 442,88 га, загальний об'єм 4051,4 тис. м^3. Найоб'ємніші серед них знаходяться у населених пунктах: с. Градиськ, с. Костюхнівка та у селищі Маневичі. Ставки відіграють визначальну роль у формуванні рекреаційного потенціалу територій. Вони забезпечують широкий спектр можливостей для активного та пасивного відпочинку, сприяючи фізичному та психологічному оздоровленню людини. За належного облаштування ставки можуть стати привабливими туристичними об'єктами, що сприятиме розвитку регіону. Загальна кількість озер – 12, площа дзеркала становить 93,55 га. Найпривабливішими та найбільшими серед них є озера Лісовське – 23,75 га та Вино – 18,5 га. До найглибших озер належать Вино, Засвинське (Засвідське), Озерце (Хидча). Загальний об'єм водної маси – 1231,9 тис. м^3. Значна частина його припадає на озера: Вино – 410 тис. м^3, Лісовське – 330 тис. м^3, Череваха – 28 тис. м^3. Більшість досліджених водойм характеризуються необхідними і сприятливими умовами для організації на їх базі тих чи інших видів рекреаційної діяльності. У статті розроблено комплексний підхід до оцінки рекреаційного потенціалу водойм. На основі узагальнених параметрів та характеристик водних об'єктів визначено критерії, що дозволяють оцінити придатність водойм для різних видів рекреаційної діяльності.

Висновки. Дослідження виявило значний рекреаційний потенціал водних ресурсів території, що включає річки, ставки та озера, придатні для різноманітних видів відпочинку. На основі комплексного підходу та розроблених критеріїв оцінки визначено можливості використання водойм для рекреаційної діяльності.

Отримані узагальнення є основою для розробки заходів раціонального використання, охорони та збереження природно-ресурсного потенціалу водойм (річок, ставків, озер), розробки довгострокових планів ефективного їх використання, обґрунтування стратегії дій щодо захисту унікальних водойм, зокрема для збереження ландшафтного та біотичного різноманіття. Окрім того, результати дослідження можуть бути використані для планування та організації рекреаційної діяльності з урахуванням особливостей конкретних водних об'єктів. Використання водних ресурсів з іншими природними чинниками можуть стати ключовим напрямом розвитку рекреаційної діяльності.

Ключові слова: річка, озеро, ставок, водойма, рекреаційна діяльність, природні ресурси, рекреація, туризм.

Introduction. Water resources of the Manevytsia United Territorial Community (hereinafter referred to as the Manevytsia UTC) are characterized by a dense hydrographic network and significant reserves. The study of the state and use of water resources, in particular rivers, ponds and lakes, is one of the important tasks of nature management and preservation of the ecological sustainability of the environment. Significant resources include water, hydrobiotic, organo-mineral, recreational, and informational [1; 2]. In this regard, the study of water resources and the prospect of their use in recreational activities is of great theoretical and practical importance.

Theoretical aspects of the study of water bodies, namely classification, geoecological studies, synthesis of limnological and geographical knowledge about Ukrainian Polissya, landscape and limnological conditions for the formation

of lake resources are considered in the works of L. Ilyin [2; 4–6; 14; 15]. N. Fomenko studied the classification of recreational resources, assessed the natural recreational potential of territories, determined the magnitude of recreational loads, and also analyzed landscape complexes of factors and conditions with medicinal properties, characterized the recreational resources of Ukraine [12].

The features of the use of water resources of the Volyn region and their ecological state in modern conditions were studied by M. Melniychuk [10]. Information about the reservoirs of the Manevytsia united territorial community is described in the works of Polish researchers of Polissya – J. Kondartsky, B. Krygovsky, S. Lentsov, E. Rülle. A quantitative assessment of the recreational attractiveness of the lakes of the Volyn region and the possibility of their use in tourism was carried out by D. Kalinovsky [7; 8]. Coverage of issues of recreational areas and rehabilitation centers of the North-West region is presented in the scientific works of O. Gromyk, S. Korotun, T. Skoryna [16]. However, the issue of the natural resource potential of the Manevytsia community, the prospects for their use in recreational activities and the development of measures for their rational and recreational use remains insufficiently studied.

The initial materials for generalization and testing of the study were the results of our own observations (participation in expeditions to study the recreational natural potential of various types of water bodies of the studied territory, collection, processing and analysis of information), materials of the Regional Office of Water Resources in the Volyn region.

The purpose of our study is to assess and analyze the water resources of the Manevytsia united territorial community, in particular rivers, ponds and lakes with the further prospect of use in certain types of recreational activities based on morphometric indicators.

Methods. Traditional research methods used in landscape science were applied, a comprehensive combination of the results obtained is presented. The methodological basis of the study is made up of general scientific and special methods: systemic, which involves the systematization, classification and typology of research objects, geoecological, landscape; complex and component-by-component assessment of environmental factors; cartographic research method; statistical analysis of sample data. During the study, the following software was used: MS Excel, MS Word and others.

The recreational and tourist direction of research is an integral part of the research topics was carried out by Lutsk National Technical University “Research of natural and recreational potential and evaluation of tourist resources Western region” 0119U002381 and National University of Water and Environmental Engineering “Geographical and economic aspects of the study tourist and recreational complex, tourism and hospitality Rivne region” 0123U104170.

Results of the study. Volyn region is rich in surface waters: rivers, lakes, ponds. There are 137 rivers with a length of 3621.1 km in the region. Most of them belong to the basin of the Prypiat River and its main tributaries (the rivers Turiya, Stokhid, Styr). Among the western regions of Ukraine, Volyn region has the largest number of lakes – 265, with a total area of 13065.61 ha [2; 3; 5; 13]. They are diverse in origin. The vast majority are karst lakes, the smaller number are floodplain lakes. The latter are shallow, confined to the floodplain of the Prypiat River and its tributaries, and have the appearance of remnants of old channels. Floodplain lakes are swampy, with low banks and a viscous bottom. Karst lakes are located in the catchments of the Tury, Vyzhivka, Tsyru and Stokhid rivers and the interfluve of the Western Bug and the Pripyat [4].

As part of the administrative-territorial reform in Ukraine in 2020, the Manevytskyi united territorial community was established in the Kamin-Kashyr district of the Volyn region. A number of village councils were attached to the Manevytskyi community, including: Manevytskyi, Budkivskyi, Velykovedmezskyi, Dovzhytskyi, Komarivskyi, Kostyukhnivskyi, Kuklynskyi, Lisivskyi, Novorudskyi, Okonskyi, Starochortoryiyskyi, Troyanivskyi, Tsminivskyi, and Cherevakhivskyi (Fig. 1).

Fig. 1. Map-scheme of the Manevytska united territorial community [9]

The Manevytska community is located in the north-eastern part of the Volyn region. It borders on the Prylisnenska community in the north-west, on the Kamin-Kashyrska in the north-west, on the Povorska in the west, on the Vilytska in the south-west, on the Kolkivska communities of the Volyn region in the south, and on the Varaska and Polytska communities of the Rivne region in the east. The area is 1103.6 km^2, which is 5.48% of the territory of the Volyn region.

The unique combination of favorable climatic conditions, diverse natural resources and nature reserves gives this community significant recreational potential. The Okon springs with their unique flora and fauna, as well as numerous protected areas attract ecotourism enthusiasts. There are 31 nature reserves (6 of national and 25 of local importance) on the territory of the community. The objects of the nature reserve fund have special environmental, scientific, aesthetic, recreational and other value, allocated to preserve the natural diversity of landscapes, the gene pool of the animal and plant world, maintain the overall ecological balance and ensure background monitoring of the environment. Manevytska UTC is located in the Pripyat River basin. The hydrographic network of the territory is represented by 18 rivers, the largest of which are: Styr – 54.81 km (23.61%), Osyna (Stokhid-Yasynya) – 22.39 km (9.66%), Cherevakha – 29.45 km (12.7%), Okonka – 26 km (11.21%), Chernyavka (Chornyavka) – 17 km (7.33%) and Pidgorodets – 13.93 km (6.0%) (Table 1). All rivers are of the plain type and are characterized by a slow flow (0.1–0.2 m/s).

The community's water resources include 112 ponds, the total area of the water surface at the NPR is 442.88 hectares, the total volume is 4051.4 thousand m^3. The largest among them are located in the following settlements: the village of Hradisk, the area of the water mirror is 64.00 hectares (volume – 640.0 thousand m^3), 40.89 hectares (volume – 269.8 thousand m^3) and 36.67 hectares (volume – 258.9 thousand m^3), the village of Kostyukhnivka, respectively – 16.04 hectares (volume – 128.3 thousand m^3), 14.65 hectares (volume – 71.82 thousand m^3) and 13.12 hectares (volume – 89.2 thousand m^3) and in the village of Manevichi – 23.75 hectares (volume – 330.0 thousand m^3). Ponds play an important role in recreational activities, providing opportunities for recreation, health improvement in nature. Therefore, the preservation and rational use of these reservoirs is an important task for future generations. Lakes are a funda-

Table 1

Main morphometric indicators of the rivers of Manevytsia UTC, Volyn region (summarized from the stock materials of the Regional Office of Water Resources in Volyn region)

River name*	Settlement	Flows to	Length within borders of territorial community		Total length (within the borders of Ukraine), km
			км	%	
Noname	v. Kolodiji, v. Novi Pidtsarevichi	r. Styr	10.74	4.6	15
Noname - L	–	r. Styr	3.28 – along the border of Volyn and Rivne region	1.41	15
Horbah	–	r. Prypjat	12.19	5.26	12.19
Zaliznytsa (Zhelisytsa)	v. Komarove	r. Styr	10.45	4.51	19
Kormyn - R	–	r. Styr	0.19	0.081	65
Manevka (Noname)	–	r. Prypjat	11.47	4.95	25.84
Pidhorodets	–	r. Okonka	13.93	6.0	13.93
Pischanka	v. Hrjask	r. Styr	10.53	4.5	10.53
Okonka	v. Okonsk, v. Novosilky	r. Okonka	26	11.21	26
Osyna (Stohid-Jasynja)	v. Maidan, v. Chersk, v. Berezhnytsja	r. Stohid	20.66	8.91	27
Styr - L	–	r. Prypjat	14.99	6.47	464
Styr	–	r. Prypjat	23.5	10.14	464
Styr - L	–	r. Stohid	16.32 – along the border of Volyn and Rivne region	7,0	464
Stohid - R	–	r. Prypjat	4.48	1.93	197.8
Stohid	–	r. Styr	4.9	2.11	197.8
Osyna (Stohid-Jasynja) - L	–	r. Stohid	1.73	0.75	27
Cherevaha	v. Nova Ruda, v. Nabruska, v. Gradysk	r. Cherevaha	29.45	12.7	30
Chernjavka (Chornjavka)	v. Budky	r. Styr	17	7.33	17
Total UTC:			231.81		

Note: * banks: L – left, P – right

mental component of recreational systems. Their morphometric characteristics and aesthetic qualities directly affect the recreational capacity of territories, that is, the number of people who can simultaneously relax on the lake without harm to the environment. Lakes create unique landscapes that attract tourists and provide conditions for various types of recreation, such as: swimming, fishing, water walks, etc.

Recreational areas of significant size, as a rule, include entire lake systems with an area of tens of thousands of hectares. The morphometric characteristics of lakes and the aesthetic value of their shores are key factors in determining the recreational capacity of Polissya territories.

On the territory of the Manevytska UTC, lakes and their shores are the main components of recreational systems. Assessment of the recreational potential of the territory involves the analysis of natural-territorial and natural-aquatic complexes. The Manevytska community is characterized by a lake-river type of recreational systems.

The lakes belong to the Pripyat River basin. The total number of lakes is 12, the sur-

face area is 93.55 hectares, and the volume is 1,231.9 thousand m³. The most attractive and largest of them are lakes Lisovskoe – 23.75 ha (25.39%) and Vino – 18.5 ha (19.77%). The deepest lakes include Vyno (6 m), Zasvinske (Zasvidske) (6 m), Ozertse (Khidcha) (3.5 m). The total volume of water mass is 1232 thousand m³. A significant part of it falls on the lakes: Vyno – 410 thousand m³ (33.3%), Lisovskoe – 330 thousand m³ (26.8%), Cherevakha – 28 thousand m³ (2.27%) (Table 2). The morphology of the shores of some lakes is characterized by the presence of protrusions – capes, which are symmetrically located on both sides of the lake. This feature gives the lake a shape resembling the figure "eight", as if two reservoirs had joined (Vino and others).

Table 3 formulates the criteria that water areas must meet in order to ensure optimal conditions for the development of these types of recreational activities [7].

Table 2

Hydrological indicators of lakes of Manevytska UTC (summarized based on the stock materials of the Regional Office of Water Resources in Volyn region)

Name of the lake	Settlement	Location coordinates		Total space of water surface		Average depth, m	Maximum depth, m	Lake volume	
		latitude	longitude	hec	%			thousand. м³	%
Nonamt	v. Mala Jablunka	51°13'35.3"	25°30'55.7"	2.0	2.1	–	–	42	3.4
Bolotne	v. Maidan	51°18'22.8"	25°17'54.2"	3.0	3.2	1.5	3.0	46.5	3.77
Vyno (Vino)	v. Gradysk	51°20'50.8"	25°21'23.9"	18.5	19.77	2.2	6.0	410	33.3
Zasvynske (Zasvidske)	v. Gradysk	51°22'37.1"	25°24'32.1"	10.25	10.96	2.5	6.0	25.8	2.09
Ivanivske	v.Cherevaha	51°15'44.0"	25°26'31.6"	1.8	1.9	2.5	–	35	2.8
Kruchene	v.Cherevaha	51°19'16.3"	25°23'55.4"	2.0	2.1	1.2	–	20	1.62
Ozertse (Hydcha)	v. Hradysk	51°23'15.7"	25°23'24.0"	1,1	1.17	1.8	3.5	19.6	1.59
Lisovske	v. Manevychi	51°17'20.0"	25°39'02.9"	23.75	25.39	1.4	2.5	330	26.8
Panino	v. Mala Vedmezhka	51°17'41.7"	25°47'50.3"	12.68	13.5	1.2	2.0	150	12.18
Svitle	v.Sofijaniv-ka	51°14'4"	25°20'44"	1.8	1.9	2.0	–	41	3.33
Cherevaha	v.Cherevaha	51°16'33"	25°26'5"	11.67	12.47	2.4	–	28	2.27
Cherske	v. Chersk	51°19'15.8"	25°14'08.9"	5.0	5.3	2.4	–	84	6.82
Total in UTC:				93,55	–	–	–	1231,9	–

Table 3

Parameters of water areas for recreational use [12]

Parameters of water areas	Swimming	Diving	Rowing boats	Kayaks and canoes	Academic dam	Springboard jumping	Water ski	Motor sports	Sailing
Desired area (ha)	5	–	100–500	500	–	–	100–500	100–500	300–900
Minimum area	–	–	1	30	–	–	–	30–50	50–100
Desired length (m)	50	–	22000	2200–5000	2500–3000	–	1500	1600–15000	1850–2500
Mini-mum length	25	–	1100–1200	1000–1100	–	–	–	750–1000	500

Continuation of table 3

Desired width (m)	25	–	90–100	900–2000	140–200	–	200	200–2000	200–2000
Minimum width	5–11	–	30–100	30–200	120	–	–	50–200	200
Desired depth (m)	1.4–1.8	–	2–3	2–5	3	5.8	–	3–5	1.2–2.0
Minimum depth	0.5–0.6	–	0.75	0.75–1.50	2.5–3.0	5	–	1.5–2.0	1.0–1.2

To determine the suitability of lakes for active and beach recreation, their natural features were studied. An attempt was made to assess the recreational suitability of lakes by such indicators as area, length, width and average depth [4].

For the assessment, we used a comprehensive approach that included data on the lakes of the Manevytska UTC, cartographic materials. The analysis was carried out by comparing the characteristics of lake water areas with the established normative values (Table 3). The results obtained are summarized in Fig. 2–4.

Lake Bolotne belongs to the hydrological reserve of local importance "Lake Bolotne" and has the appearance of a unique natural complex, combining a shallow lake and a mesotrophic swamp. This territory, bordering the floodplains of the Stokhid River, included in the Ramsar list, is of exceptional importance for the preservation of biodiversity. The presence of rare species of flora and fauna makes this object promising for use in recreational activities. Given the high natural value of the territory, it is necessary to implement a system of measures aimed

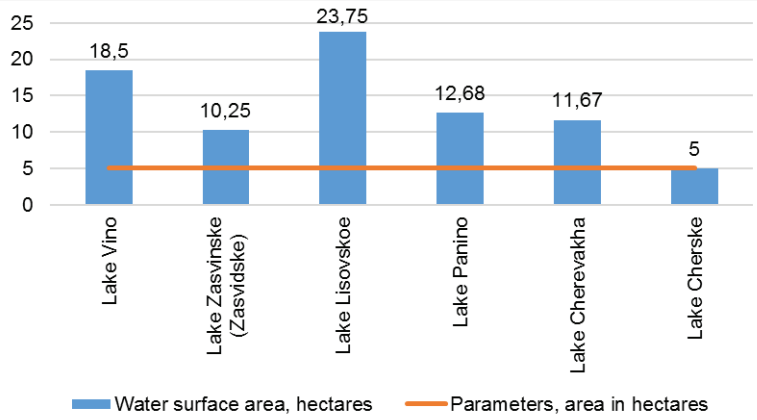

Fig. 2. Lakes suitable for swimming

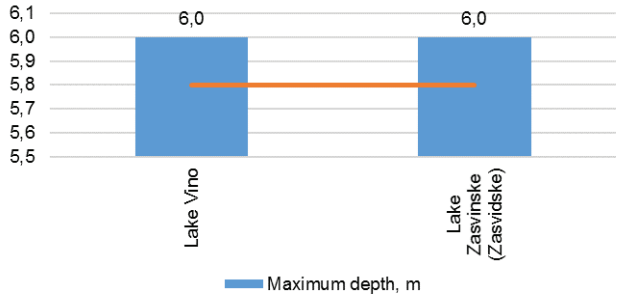

Fig. 3. Lakes that are suitable for jumping from a springboard

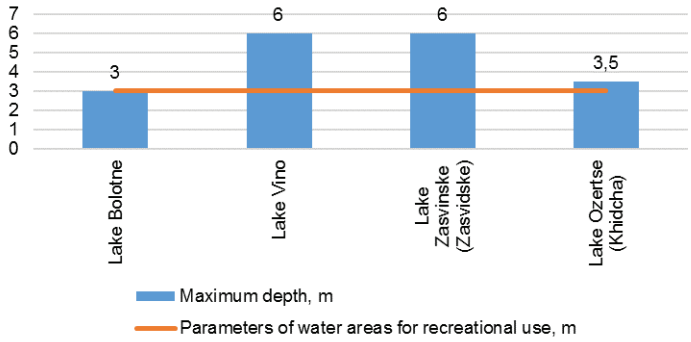

Fig. 4. Lakes that are suitable for academic damming and jumping from a springboard

at the preservation of natural complexes and the rational use of recreational resources. Lake Vino, located 2.5 km southeast of the village of Hradisk, is a unique hydroecological complex with a characteristic limnological structure. We recommend using it for swimming, diving and academic damming by recreationists.

Lake Zasvinske (Zasvidske), located within the landscape reserve "Gradysky" and represents a unique hydroecological complex of karst origin and a regular rounded shape. The water is rich in glycerin, which has a positive effect on the health of vacationers. The lake is characterized by high water transparency and a variety of biotopes of the coastal zone, which determines its high biological productivity. In terms of the development of recreational activities, Lake Zasvinske has significant potential. The developed recreation infrastructure, which includes camping sites, gazebos, a pier and equipped fishing areas, makes this area attractive for vacationers (Fig. 2–4).

Lake Ozertse (Khidcha), located within the landscape reserve "Gradysky", has a unique hydroecological complex of karst origin. The presence of rare plant species indicates the high conservation value of this water body and adjacent territories. Together with Lake Zasvinsky, Lake Ozertse forms an important component of the biodiversity of the "Gradysky" reserve, giving it the status of a valuable object for recreational activities. We recommend that recreationalists use it for the academic dam.

The local hydrological reserve "Svitly" (with an area of 16.2 hectares) is a valuable object of the nature reserve fund. The central element of the reserve is Lake Svitly of karst origin. The unique set of geological and hydrological processes that form the lake and the diversity of biotic communities opens up prospects for its use for recreational purposes.

Thus, lakes play an important role in the formation of recreational activities. In the territory of the studied area, the bulk of recreational centers are formed on the basis of lake-river systems. Tourists use them for swimming, diving, academic dams, as well as for fishing and recreation (Fig. 2–4).

Manevytska UTC has significant tourist and recreational resources, which are underused and contain potential for organizing recreation and health improvement. For tent tourism, places have been identified within the boundaries of the Stokhid and Styr rivers, ponds – the village of Okonsk and lakes: Vino, Zasvynske (Zasvidske), Kruchene, Ozertse (Khidcha), Panino. An analysis of popular tourist routes covering water bodies has been conducted and is presented in Table 4.

Water tourist routes are dominant, which is determined by the extensive hydrographic network. Traveling on motorboats is interesting. After all, they allow you to get acquainted with the unique objects of this region in a short time and with comfort. Climatic features indicate favorable weather conditions for summer and winter types of recreation and tourism. The available surface waters contribute to the organization of recreational activities, in particular the development of water, sports and health tourism, fishing, etc.

Table 4

Tourist routes*

Route type	Route name	Characterization
Two days travel	Route № 1	Route length 35 km: village of Prilisne – village of Gorodok – lake Kruchene – lake Vino – village of Troyanivka – village of Chersk – village of Maidan – lake Bolotne
	Route № 2	Route length 20 km: Cheremsky Reserve – Lake Redychi – Lake Lokottya, Panska Gora – Lake Panino (Zasvitya) – village Serkhiv – Lake Ohnych – Lake Dovhe in the village of Zamostya – village Karasyn – Lake Svyatye and Bile – Lake Trosne
Walking and cycling	Route № 3	Manevichi village – Prylisne village – Gorodok – Hradysk, – Veselukha and Cherevakha rivers – Babynets swamp – lakes: Hlybotske – Khydcha – Zasvynske – Vino and Kruchene
Walking	Route № 4	Route length – 30 km: village of Troyanivka – lake Vino – village of Hradisk – lake Khidcha – lake Zasvinske – lake Hlybotske
Two days water travel	Route № 5	Route length – 35 km: Lake Hlyboke – Lake Zasvinske – Lake Khidcha – village of Hradisk – Babynets marsh – Lake Vino – Lake Kruchene
	Route № 6	Route length – 40 km: village of Troyanivka – village of Chersk – Stokhid River (swimming, kayaking and boating) – Prystan tract, village of Berezhnytsia

* Based on the basis [1; 11]

Let us highlight the most effective measures to improve the development of recreational activities on the territory of the Manevytskyi united territorial community of Kamin-Kashyrskyi district of the Volyn region of Ukraine:

− implementation of a comprehensive marketing strategy to popularize the recreational potential of the region by conducting advertising campaigns and organizing press tours;

− stimulation of the development of the tourism industry by attracting international grants for reconstruction and modernization;

− attracting investments in the development of the tourism and recreation industries;

− developing and modernizing recreational areas to meet the needs of community residents and tourists;

− creating and developing online platforms for comprehensive information about the tourism infrastructure of the community;

− promoting the adaptation of hospitality and health industry enterprises to new economic conditions;

− installing public toilets adapted for people with disabilities.

The conducted research has shown an urgent need to develop and implement a comprehensive strategy for the development of the tourism industry of Manevytska ATC. The proposed measures aimed at optimizing infrastructure, attracting investments, improving the quality of tourism services and strengthening the promotion of the recreational potential of the region will not only increase the tourist flow, but also contribute to the socio-economic development of the community. The results of the research can be the basis for developing a detailed plan that will take into account the specifics of the region and current trends in the development of recreational activities.

Conclusions. A significant number of studied water bodies, in particular rivers, ponds and lakes, are characterized by favorable conditions for organizing various types of recreational activities on their basis. The most promising, in our opinion, are: swimming, recreation with the use of rowing boats, academic damming, springboard jumping, organization of beach recreation, etc. Lakes and their coasts are key recreational objects that form lake recreational areas (recreational areas, recreational zones).

The water resources of the Manevytsky community combine significant recreational potential and investment attractiveness. The rivers and lakes of the community can be the

basis for the development of ecological tourism and other types of active recreation. At the same time, this is a presentation of a promising direction for investments in tourism infrastructure. At the same time, they represent a promising direction for attracting investments in the tourism industry of the region.

Prospects for further research on assessing the recreational potential of water bodies should include elucidating their balneological features.

Information on conflict of interest. There is no conflict of interest.

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