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SCIENTIFIC AND METHODOLOGICAL APPROACHES TO DEVELOPMENT OF PROJECTS OF LAND MANAGEMENT ON ESTABLISHMENT OF COASTAL PROTECTIVE STRIPS

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Scientific and methodical approaches to development of projects of land management on establishment of coastal protective strips which are based on provisions of operating standard and legal base and the accounting of ecological and economic requirements of rather rational use of the land lots of water fund are offered.

Problem statement. All waters in our state are national property of the people of Ukraine, one of the natural foundations of its economic development and social welfare [2]. With the increasing anthropogenic pressures on the environment, the development of social production and growth material needs there is a need to develop and compliance with specific rules of the use of water resources, rational use making use of environmentally oriented defense.

With the protection of surface water bodies from pollution and contamination and maintain their water content along the rivers, seas and around lakes, reservoirs and other water bodies within the protection zones allocated land under the coastal protection zone (Article 60 of the Land Code of Ukraine). In coastal zones understand of water protection zones along the width of the river, the sea around the reservoirs, which set stricter regime of economic activity than the rest of the water protection zone.

According to Article 80 of the Water Code of Ukraine coastal protection zone established for individual projects land. Lack of projects approved land for the establishment of coastal zones creates conditions for illegal business activities in the coastal windbreak, and in some cases at area water body, which is the unauthorized occupation of lands of water fund use them inappropriately. Doing so often the activities of economic entities and citizens causing considerable damage to the environment, creates the conditions and causes of pollution of surface waters and lands within the territories.

According to Art. 88 of the Water Code of Ukraine the draft land use to establish the limits of coastal protection zones prepared in the manner prescribed by law. Such procedure at the present time is not developed. In addition, there are no generally accepted scientific and methodological approaches to the development of land

management projects on which are placed on coastal protection zones.

Analysis of recent research and publications. Issues of rational land use and protection of water resources and land development projects for the establishment of coastal protection zones covered in publications T.O. Evisukov, A.P. Kanash, A. Koshel, A.G. Martyn, S. Osypchuk, I.V. Pokydko, M.P. Stetsyuk, M.A. Khvesyk, M.I. Shkvyrya, A. Iatsyk and other researchers [1, 5, 7]. Basic indicators and parameters that determine the establishment of coastal zones in modern economic and business conditions, is largely debatable that requires further research and generalizations.

Article purpose – scientific foundation structure, content and development, coordination and approval of land for the establishment of coastal zones.

Main material. Based on the study and analysis of various information and cartographic sources, applicable regulations, concepts, methods and criteria and guidelines in the State enterprise «Kyiv Scientific Research and Design Institute of Land Management» is defined scientific and methodological approaches to the drafting of land for the establishment of coastal zones (hereinafter – land management projects). These scientific and methodological approaches are based on the provisions of the existing legal framework and taking into account environmental and economic requirements for sustainable use of land and water resources of coastal zones.

Legal framework for the developing land management projects is the Land Code of Ukraine of 25.10.2001, № 2768-III, Water Code of Ukraine dated 06.06.1995, № 213/95-BP, Laws of Ukraine «On Land Management» dated 22.05.2003, the

№ 858-IV and «On Protection of Land» dated 19.06.2003 № 962-IV, and the Cabinet of Ministers of Ukraine of 08.05.1996, № 486 «On approval of determining the size and boundaries of water protection zones and mode of doing business in these» [2, 4, 8]. Of particular note is ordering method water conservation zones rivers of Ukraine, Ukrainian Research Institute developed water and environmental problems in 2004, and the standard of the State Committee of Ukraine for Land Resources «SOU SCLR 00032632-005:2009. Land Management. Projects Land to establish protection zones. Rules development» [6, 9].

We have developed a structure of land management projects, and also the procedure for approval and approval of them. The structure of land management projects includes the following sections and sub-sections and their meaning:

I. Explanatory Note

Entry

Section 1. Natural conditions of the study

Section 2. Characteristics of the water body

Section 3. Commercial use of land

Section 4. Set the coastal protection zone

4.1. Legal framework for the definition and establishment of the coastal protection zone

4.2. Features establishing coastal protection strip in settlements

Section 5. Set the mode of economic activities in the coastal windbreak

Section 6. Approval and adoption of land management project

Section 7. Transferring land management project in nature (on location)

Chapter 8. Amendments to forms of state statistical reporting of land

- II. Applications:
1. Terms of reference for drafting the land
 2. State act on land
 3. Sample special information signs to be placed in coastal belts of water bodies
 4. License to carry out works on land use, land assessment
- III. Graphic materials:
1. Plan the coastal protection zone
 2. Pattern transfer of land use design in nature (on location)
- IV. Materials coordination and approval of the draft land:
1. Opinion on the endorsement of land by land
 2. Opinion on the endorsement of land protected by
 3. Opinion on the endorsement of sanitary-epidemiological land management agencies
 4. Opinion on the endorsement of land by urban planning and architecture
 5. Opinion on the endorsement of land by the Culture and Tourism
 6. Opinion on project approval by land on water management
 7. Decision on approval of the customer works project land

The project land should be developed on request of individuals and entities, including bodies of water management and other specially authorized bodies and the owners and users of land. The object of the design is the area of land within which water bodies are or what should be common mode protection zone of water bodies. The developers of land management projects can be natural or legal persons who have received a license to carry out works on land.

Projects to develop land-based tasks issued by the customer. They include text

and graphics, applications, and materials coordination and approval of land management projects.

Drafting land must precede construction works: the study and analysis of the natural conditions of the territory, including terrain, processes, flooding, flooding, and intensity coast destruction, design engineering protection of the coast, the presence of buildings, purpose of land plots, within which established coastal protection zones.

The introduction briefly covering the following topics:

The legal prerequisites for the development of land management project;

The relevance of establishing coastal strip and the basis for the drafting of the land;

Purpose of the project land;

Availability of developed land management documentation and urban planning at the studied land.

In sections 1–3 indicate the name of the water object, information about its arrangement, water regime, geographical features, natural resources and ecological environment in the basin water body, according to which the object is taken into account by Section «Surface water» State Water Cadastre, containing photos of his overall appearance. We also present a characterization of the design area (district, city, town, village), which is set within the coastal zones water object (name, administrative subordination, area, structure of land, major land owners and land users, etc.), location and size land included in the coastal protection zone, the list of land within the coastal zone, in tabular form.

Sections 4 and 5 describe the legal and engineering basis to determine and establish coastal zones. Rights define and

establish coastal protection zones shall be in accordance with Articles 88–90 of the Water Code of Ukraine and Articles 60–62 of the Land Code of Ukraine. Listed in Part 1 of Article 88 of the Water Code of Ukraine provisions indicate that the legal regime of coastal protection zones can be installed on dedicated exclusively for this land within the protection zones around surface water bodies.

Designing the coastal protection zone includes the definition of its internal and external borders. The inner boundary of the coastal protection zone coincides with the minimum water level in the water bodies. The outer limit of the coastal protection zone and its width primarily depends on the characteristics of the water body, around which it is set.

The first group consists of rivers and water bodies (lakes, reservoirs, ponds), and the second – the sea, bays and estuaries. In the first case the width of the coastal protection zone ranges from 25 to 100 m, and the second – at least 2 km.

Coastal protection zone established along rivers and around bodies of water along the water's edge (in the low-flow period – the period of the annual cycle, during which there is a low water content) in width:

- a) for small rivers, creeks and streams, and ponds area less than 3 hectares – 25 m;
- b) for medium-sized rivers, reservoirs on them, reservoirs and ponds over an area of 3 hectares – 50 m;
- c) for large rivers, reservoirs and lakes on them – 100 m

At the steepness of slopes above 3° minimum width of the coastal protection zone doubles.

Coastal protection zone established on the land of all categories of land, except land marine transport [2].

Legal regime of coastal zones established exclusively on land, the limit is determined by the water's edge, and does not apply directly to water bodies or their part.

Features establishing coastal protection strip in settlements. According to Article 88 of the Water Code of Ukraine within existing settlements coastal zones established based urban planning. Last accordance with the Law of Ukraine «On regulation of urban development» from 17.02.2011, № 3038-VI [3] is defined as the approved text and graphics on the regulation of planning, development and other land use. Such documentation, such are the general plan of the settlement and a detailed plan for the territory.

According to Article 17 of the Act the General Plan settlement – is the main type of urban planning at the local level, designed to study long-term strategy planning and development of the settlement.

According to the General Plan settlement outer limit of the coastal protection zone established within existing buildings (to limit development).

Set the mode of economic activities in the coastal windbreak. According to Article 44 of the Water Code of Ukraine water users must comply with the established mode of economic activity within the coastal protection zone, including:

Properly maintained sanitary protection zones sources of drinking and household water supply, coastal protection zones, easement, coastal strip of waterways, sewage and other water management structures and technical devices;

To record abstraction and use of water, to control the quality and quantity dropped into the water and return water pollutants

and water quality of water bodies in the control sections, and submit reports to appropriate authorities in accordance with the procedure specified in this Code and other laws;

Carry out agreed as appropriate technology, agroforestry, agronomic, hydraulic, sanitary and other measures to protect water from exhaustion, improving their status and cessation of wastewater discharge.

According to Article 61 of the Land Code of Ukraine coastal protection zone is a protected area with a regime of limited economic activity. Therefore, coastal protection zones can be used for economic activities subject to mandatory compliance under Articles 89 and 90 of the Water Code of Ukraine.

According to Article 89 of the Water Code of Ukraine in coastal zones along rivers, around ponds and islands are prohibited:

Plowing (except for meadow soil preparation and afforestation), as well as gardening and horticulture;

Storage and use of pesticides and fertilizers;

Arrangement of summer camps for cattle;

Construction of any structures (except hydraulic, hydrometric and linear), including resorts, cottages, garages and parking lots;

Cleaning and maintenance of vehicles and equipment;

Placement of landfills, manure storage, storage of liquid and solid wastes, cemeteries, cattle cemetery, drain fields, etc.

Objects that are in the coastal windbreak, can be operated, if it is not broken her profile. Not suitable for the operation of facilities, and those that do not meet the established modes of

management, subject to the imposition of coastal zones.

According to Article 90 of the Water Code of Ukraine within the land for coastal protection zones along seas, bays, estuaries and islands in inland marine waters are prohibited:

The use of stable and potent pesticides;

Arrangement of polygons domestic and industrial waste and sewage storage;

Arranging sink to collect household sewage volume greater than 1 cubic meter per day;

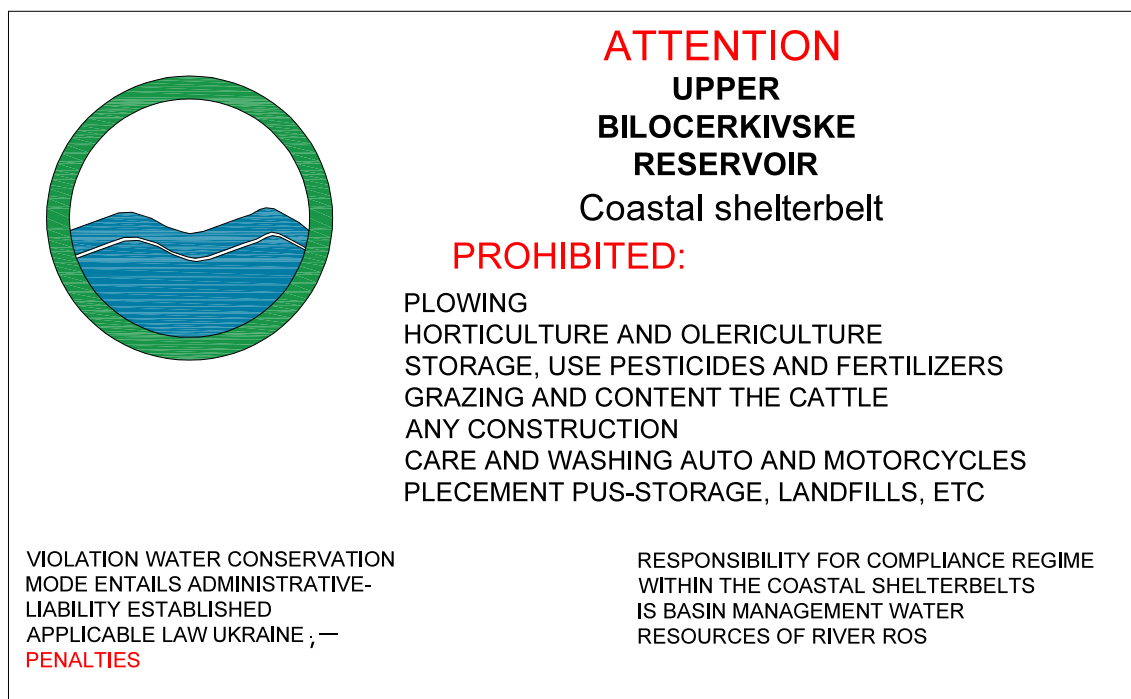
Installation of drain fields and create other facilities for receiving and decontamination of liquid wastes.

Coastal protection zones along seas, bays and estuaries included in the zone of sanitary protection of the sea and can only be used for the construction of health centers and other medical and health institutions with mandatory centralized water supply and sanitation.

In section 8 – 6 determine the order of approval and adoption of the project land, transferring it to the nature and changes to forms of state statistical reporting of land resources.

Project Land coordinate with local land resources, environmental and sanitary authorities, on culture and tourism authorities on water management authorities and urban planning and architecture. The agreed draft land considered and approved by the customer.

Transferring land management project in real (to the area) is instrumentally using electronic total station with reference to paragraphs state geodetic network. The boundaries of the coastal protection zone render in real (to the area) and fix boundary



Pic. Sample special information signs to be placed in coastal belts of water bodies

markers set design. Types and sizes of plate boundary are determined in accordance with the Order of the State Committee of Ukraine of 18.05.2010 № 376 «On approval of the Instruction on installation (recovery) of land boundaries in situ (in place) and their consolidation boundary markers». Type of boundary mark owner (user) of land chooses to reflect local environmental conditions.

In the coastal windbreak also establish special information signs. They contain information about the name of the water body, coastal zones and major restrictions on economic activities in the coastal windbreak water body (Pic.).

Special information signs installed in the ground entrance (exit) on the territory of the coastal protection zone, traffic (at the intersections of the object boundary water roads, paths, etc.).

Customer design work must be ordered landmarks and special information signs corresponding sizes in specialized organizations for their manufacture and install in situ (in place).

The annexes specify technical requirements for the design, a copy of the state act on the ground, a copy of the license for carrying on land management, land assessment and sample specific information signs to be placed in coastal belts of water bodies.

Graphic materials include coastal protection zone plan and a plan for the transfer of land use design in nature (in the area).

Plan the coastal protection zone is the scale that provides a display of all the elements and includes:

Entitled «Plan of the coastal protection zone» with the name of the water body and the name of the territory planning;

The boundaries of the coastal protection zone and its size;

Boundaries of administrative-territorial units indicating their names;

Boundaries of land within that fully or partially included in the coastal protection zone indicating their inventory numbers;

The boundaries of the land within the coastal protection strip of land designation corresponding conventional signs;

Boundaries of water bodies with their names;

Boundaries of land planned to be requirement for a coastal protection zone.

The materials of the agreement and approval of the draft land containing findings of land resources, environmental and sanitary-epidemiological bodies, urban planning and architecture of the Committee on Culture and Tourism and on water management. After approval of the draft land approved by the customer.

After project work land developer documentation should present the results of work performed electronically on magnetic media agency land resources as required, approved by the Order of the State Committee of Ukraine of 28.08.2008, № 334 «On approval of the interim order of formation of territorial zones» for inclusion in automated system of state land cadastre.

Whereas, pursuant to Article 58 of the Land Code of Ukraine land coastal zones of land belonging to the water fund (excluding land occupied by forests), the owner of the land according to the developed project land necessary to amend the forms of state statistical reporting of land

resources. Later these lands should include in the national ecological network.

Control over the establishment of coastal zones, as well as adherence to the use of their territory carried out by local executive authorities, executive committees, councils, bodies of Environmental Protection.

Supervision over the implementation of land management projects carried out by their developers and provides verification of the completeness and quality of performance measures of individual decisions under these projects.

In «Kyiv Institute of Land Management» developed several pioneering land management projects to establish coastal shelter belt, particularly along the shores of Upper Bilotserkivskiyi reservoir in the Pilipcha village Bilotserkivsk area and along the lough Kanev reservoir within the Chyrsk village Hayshynsk village council Pereyaslav-Khmelnytsk area Kyiv region and others.

Conclusions. The proposed research and methodological approaches to the drafting of land use to establish coastal zones are based on the provisions of the existing legal framework and the account of ecological and economic requirements for sustainable use of the water areas. Formation water conservation restrictions under developed in accordance with the provisions set out land management project will help create favorable treatment of water bodies, prevention of pollution, contamination and depletion, destruction around water plants and animals, as well as reduce vibrations flow along the rivers, seas and around lakes, reservoirs and other water bodies.

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Запропоновано науково-методичні підходи до розроблення проектів землеустрою щодо встановлення прибережних захисних смуг, які ґрунтуються на положеннях чинної нормативно-правової бази та врахуванні еколого-економічних вимог стосовно раціонального використання земельних ділянок водного фонду.

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Предложены научно-методические подходы к разработке проектов землеустройства по установлению прибрежных защитных полос, которые основаны на положениях действующей нормативно-правовой базы и учете эколого-экономических требований относительно рационального использования земельных участков водного фонда.