

# Chapter 11

## Problems of Arrangement on the Private Land Holdings of Ponds, That Have a Hydraulic Connection with Other Water Objects



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**Abstract** This article focused on the problems of arranging of ponds on the private landownership, that have a connection with natural watercourses—rivers, streams. In the process of investigating the influence of such ponds on the environment, including water resources and aquatic biological resources, is being studied. The main attention is paid to the peculiarities of the legal regulation of the construction on the territory of private land of ponds, that have a hydraulic connection with other water objects, the problems of carrying out the necessary approvals and studies aimed at observing environmental legislation. It is emphasized that in Russia there is no proper control and oversight by the state authorities over equipment in private land holdings of ponds associated with natural watercourses, which is due as to the reduction in inspections of compliance with environmental legislation during the spread of coronavirus infection (COVID-19), and due to the fact that a huge number of small reservoirs and watercourses in Russia significantly complicates the organization of state control over their condition. When organizing volunteer activities in Russia, it is necessary to take into account international experience to revitalize of volunteer movements to support environmental volunteer movements from the state, organize research activities of volunteers aimed at studying the state of small reservoirs and aquatic biological resources, as well as their accounting and registration.

**Keywords** Ponds on natural watercourses · Legal regulation of the construction of ponds on watercourses · Environmental volunteer movements

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## 11.1 Introduction

In recent years, the practice of arranging ponds on the territory of private land holdings has been spreading in Russia. Such ponds are built for decorative purposes, for irrigation, caring for farm animals, fishing. The self-isolation regime introduced in connection with the spread of coronavirus infection had a significant impact. Citizens forced to stay on the territory of private land holdings began to engage in their development and improvement, including equipping ponds associated with natural watercourses. The impact of such ponds on the environment should not be underestimated. Ponds equipped on natural watercourses can significantly affect water resources, since a considerable amount of water evaporates from the surface of ponds. The owners of the lots of lands on which the ponds are located intensively use water from them for irrigation, what leads to the shallowing of the reservoirs the ponds are connected with. The construction of ponds is often accompanied by the construction of retaining structures what negatively affects the state of aquatic biological resources, hindering the migration of fish. Besides, the ponds can be used for poultry production. Because of this, a significant amount of organic and pathogenic microflora matter enters the watercourses. As a result, of the active access of an organic nitrogen in reservoirs a sharp increase in the biomass of phytoplankton occurs due to the rapid reproduction of blue-green algae. This process is accompanied by an increase in oxygen deficiency, the development of anaerobic processes in the reservoir and mass death of aquatic biological resources (Strelkov et al. 2014). Fish farming in shallow water bodies, which include small ponds, can be accompanied by the growth of fish parasitic fauna (Avdeeva et al. 2017), especially in the absence of proper control by the owners of such water bodies. Besides, various chemicals can enter natural reservoirs through a pond as a result of excessive use of fertilizers pesticides and herbicides. For example, in Germany the problem of pesticide pollution of streams is acute (Liess et al. 2021). In that way, the wide distribution of ponds associated with natural watercourses on the territory of private land holdings can have a negative impact on the state of water objects and aquatic biological resources. At the same time, countering illegal equipping of ponds is difficult due to the lack of a clear legal status of a number of water objects that have signs of ponds, but are not related to them.

The problems of illegal equipping of ponds on natural watercourses are typical not only for Russia. In the United States, illegal equipping of ponds associated with a watercourse system in the Arkansas River is accompanied by the shallowing of this river and its tributaries. Countering illegal equipping of ponds is to a certain extent hampered by the lack of a clear legal status of a number of water bodies that have signs of ponds, but are not related to them (Mailliard 2018).

In Russia, the issues of legal regulation of the arrangement of ponds on the territory of private land holding are not enough research. This is relevant for ponds that are associated with natural watercourses. As noted by D. O. Sivakov, due to gaps in water legislation in places where cottages and dacha communities are built, it is possible to build arbitrary dams and appropriation of parts of streams and rivers (Sivakov 2007).

It should be noted that in Russia the legislation regulating the equipment of ponds on the territory of private land holdings has undergone significant changes in recent years. Firstly, it is necessary to study the legal status of ponds on watercourses, the procedure for equipping them on the territory of private land holdings, and also to explore gaps in water and land legislation of view of ensuring proper legal protection of water objects and aquatic biological resources, which such ponds are associated with. Secondly, should be determined what organizational and legal measures can smooth out the negative trend that may arise in the conditions of uncontrolled equipment of ponds on natural watercourses. Thirdly, it is necessary to consider the of attracting volunteer environmental groups to monitor natural small water objects, connected with ponds equipped on the territory of private land holdings in order to identify facts of violation of environmental standards.

## 11.2 Materials and Methods

The object of the research is public relations in the field of protection of water bodies and aquatic biological resources. The subject of the research is the legal norms regulating the equipment of ponds on watercourses. Since the normative legal regulation of in that field includes many laws and by-laws that are not always consistent with each other, it is necessary to conduct a comparative analysis. It is also necessary to study the existing mechanisms of control and supervision of the equipment of ponds on watercourses. Due to the fact, that the legal norms in the field of arrangement of ponds on watercourses in Russia in recent years have changed, in the course of the study it is necessary to use historical methods.

Considering ways to counteraction illegal equipment on the territory of private land holdings of ponds associated with natural watercourses, it should be mean that control and supervision by the state in this area is limited. This is also due to the reduction in inspections of compliance with environmental legislation during the spread of coronavirus infection, and due to the fact that a huge number of small reservoirs and watercourses in Russia significantly complicates the organization of state control over their condition. We believe that it is necessary to explore the possibilities of attracting various environmental volunteer organizations to the problems of the negative impact of ponds, equipped on the territory of private land holdings, on natural reservoirs, using sociological methods. Thus, statistical studies in 2020 showed that Russian citizens consider the problem of pollution of water bodies and their banks with garbage to be very urgent (73% of respondents). However only 7% of respondents are well informed about the activities of environmental protection organizations and eco-activists (Environmental agenda: ten months before the State Duma elections. Analytical report of the all-Russian center for the study of public opinion 2020).

### 11.3 Results

Let's consider the main provisions of the legislation that regulate the arrangement of ponds on the territory of private landholdings connected to natural watercourses. The Water Code of the Russian Federation does not disclose the concept of "pond". In State standard 19179-73 "Hydrology of the land. Terms and definitions" there are two definitions of a pond: a pond is a shallow storage area of no more than 1 sq. m. km.; pond—a small artificial reservoir in a specially dug hole on the surface of the earth, intended for the accumulation and storage of water for various economic purposes (State committee of standards of the Council of Ministers of the USSR 1973). Ponds can be created by damming a small watercourse such as a stream, river or canal. So, in paragraph 3 of part 4 of Art. 5 of the Water Code of the Russian Federation states that the shoreline of a pond is determined by the normal retaining water level (State Duma of the Russian Federation 2006).

According to Part 2 of Art. 8 of the Water Code of the Russian Federation, ponds and watered quarries can be owned by individuals and legal entities only if they are located within the boundaries of their land plots. The question arises: can ponds associated with natural watercourses be located on the territory of private land holdings? From the point of view of water legislation, the answer to this question is negative. Ponds associated with natural watercourses can't be privately owned, since rivers, streams and other water bodies are only owned by the Russian Federation in accordance with Part 1 of Art. 8 of the Water Code of the Russian Federation. This position was generally adhered to by judicial practice until recently. In private ownership, it was possible to have ponds that have no hydraulic connection with other water bodies and are located outside the watercourses. If the pond was not isolated from other surface water bodies and had a hydraulic connection with them, in judicial practice, such ponds belonged to the property of the Russian Federation. This also applied to ponds formed on small rivers, streams and canals with the help of water-pressure structures. This practice is reflected in paragraph 23 of the Review of judicial practice of the Supreme Court of the Russian Federation No. 2 (2019), approved by the Presidium of the Supreme Court of the Russian Federation on July 17, 2019 (Presidium of the Supreme Court of the Russian Federation 2019).

However, in 2017, changes were made to the Land Code of the Russian Federation (State Duma of the Russian Federation 2017). In Art. 40 of the Land Code of the Russian Federation, a rule appeared that the owner of a land plot has the right to build ponds, including those formed by water retaining structures on watercourses, in accordance with environmental, construction, sanitary and hygienic and other special requirements. It should be emphasized that the introduction of these changes to Art. 40 of the Land Code of the Russian Federation was not accompanied by a change in the Water Code of the Russian Federation. Often, individuals do not understand that compliance with environmental requirements when equipping such ponds is a rather complicated procedure and is accompanied by numerous approvals from various government agencies. As Professor Volkov G. A. rightly notes, ponds formed by water retaining structures on watercourses arise as a result

of construction (Volkov 2018). At the same time, according to tbsp. 11 of the Water Code of the Russian Federation, for the construction of a channel pond, a decision is required on the provision for use of a water body, which is a watercourse, since these works are associated with the construction of a water retaining structure, which is a hydraulic engineering, with a change in the bottom and banks of water bodies, as well as obtaining a construction permit. The procedure for coordinating construction and other works both on the watercourses themselves and in the water protection zone is regulated by various by-laws aimed at the preservation of aquatic biological resources. The person planning the production of such works shall coordinate them with the Federal Agency for Fishery, independently provide data on the assessment of the impact of the planned activity on the state of aquatic biological resources and their habitat, taking into account the fishery value of water bodies. During the approval procedure, it is necessary to assess the impact on aquatic biological resources, taking into account the calculation of the predicted damage to fish stocks and the development of measures to compensate for damage during construction. This requires the fishery characteristics of the water body, which, in turn, requires its hydrological characteristics. We do not consider these procedures to be redundant, since they are aimed at protecting natural reservoirs and aquatic biological resources. However, physical person, seeking to save money, often act unauthorized, constructing ponds on natural watercourses without designing and obtaining the necessary approvals, without conducting appropriate research. An example is the construction of ponds for breeding poultry on the Grachevka River in the village of Lyublino, Kaliningrad Region (Morozov and Werner 2018). This pond, which was built with the help of capital reinforced concrete structures, prevented the migration of fish. This activity is illegal. Thus, the Mineralovodsk City Court of the Stavropol region on May 8, 2018 in case No. 2-128/2018 decided to illegally equip a pond on a watercourse on the territory of the peasant farm of V. F. Melstein (Mineralovodsk city court. Stavropol region 2018). At the same time, V. F. Melshtein not only took water from the stream with which the pond was connected, but also illegally equipped the stream with a dam and a spillway structure. The specified work on the stream was carried out without any approvals from government agencies.

It should be noted that the use of ponds equipped on watercourses is also widely used for aquaculture purposes. From 2020, for aquaculture purposes, it is allowed to use agricultural land which occupied by watered quarries and ponds, including ponds formed by water retaining structures on watercourses, in order to carry out pond aquaculture. It should be borne in mind that the use of ponds equipped on the territory of private land holdings for aquaculture purposes in Russia is permissible only for agricultural land. It should also be noted that only individual entrepreneurs and legal entities can engage in this type of activity. In contrast to private land holdings owned by physical persons, the activities of economic entities engaged in aquaculture are controlled by state bodies. However, in relation to aquaculture, there are problems of pollution of water bodies as a result of the activities of aquaculture farms. The issue of compulsory environmental monitoring of fish farms under the agreement for the use of fish farms has not yet been resolved.

We believe that the norms of Art. 40 of the Land Code of the Russian Federation, authorizing the arrangement of ponds on private land holdings, should be specified, providing for duties of land owners in equipping ponds, formed by water retaining structures on watercourses:

- obtaining permission from state executive authorities for construction and earthworks;
- mandatory research of the hydrological and fishery state of the natural watercourse, with which the pond will be connected;
- compulsory development of a project for the construction of a pond and its coordination with state bodies exercising supervision in the field of water use, environmental and environmental legislation, as well as the protection of aquatic biological resources;
- the possibility of using ponds formed by water retaining structures on watercourses for aquaculture purposes only on agricultural land.

In addition, the Land Code of the Russian Federation should indicate that the unauthorized construction of ponds formed by water retaining structures on watercourses is prohibited. Similar norms should be included in the Water Code of the Russian Federation. In addition, at the level of the regions of the Russian Federation, it is necessary to include in the rule of land use and development, the norms for the arrangement of ponds formed by retaining structures on watercourses.

As we indicated above, in Russia it is rather difficult to organize control over the proper observance of environmental legislation when equipping private land holdings of ponds associated with natural watercourses. To identify the facts of illegal arrangement of such a pond, it is possible to use various volunteer movements. However, at the present stage, unfortunately, state bodies are not ready to cooperate with volunteers, often perceiving them as a burden with an uncertain legal status. In addition, environmental volunteering is not popular enough. A survey of 255 students of the Kaliningrad State Technical University showed that only 34% of the respondents would choose environmental volunteering from other types of volunteering. 18% of the respondents were informed about environmental volunteer organizations existing in the Kaliningrad region. The majority are not ready for the material and technical difficulties associated with environmental volunteering—77% of the respondents. 84% of the respondents do not have a sufficient understanding of the methods of recording illegal activities that damage natural reservoirs and aquatic biological resources. 56% are not ready for conflicts with the owners of ponds associated with natural watercourses. 80% have no idea what state bodies should contact in case of revealing facts of violation of environmental legislation. Thus, it is obvious that it is necessary to develop measures aimed at activating environmental volunteer movements, including in the field of checking the state of natural watercourses, with which ponds on the territory of private land holdings may be connected. This requires, firstly, a clearer legal regulation of volunteer activities. So, for example, in Russia the issue of including volunteer activity in the work experience has not been resolved, the advantages that volunteers could have in employment have not been

established. Secondly, in separate regions appropriate programs should be developed, providing for the organizational and material support of volunteers. Thus, the survey of natural watercourses requires the availability of appropriate clothing and footwear, camping equipment, first aid equipment, etc. Secondly, an important area is the participation of volunteers in research activities, which may include the study of water and aquatic biological resources in streams, rivers and canals, which are associated with ponds equipped on the territory of private land holdings. Thirdly another area is the participation of volunteers in the formation of inventory of water resources, including the registration of small streams and rivers, as well as associated water bodies on the territory of private landholdings. Thus, 94% of the respondents indicated that scientific activity during the examination of natural objects helps to attract young people to participate in volunteer movements.

## 11.4 Discussion

It should be noted, that in science insufficient attention is paid to the problems of legal regulation of the construction of ponds formed by water retaining structures on watercourses. This to be due to a limited empirical base. The norms allowing the equipment of such ponds on the territory of private land holdings were introduced into the Land Code of the Russian Federation in mid-2017. However, it is quite difficult to identify cases of illegal construction of such ponds, because since 2020, inspections of compliance with environmental and environmental legislation by various state bodies have been limited in Russia. Accordingly, the number of court and administrative decisions in this area impedes the conduct of scientific research.

The positions of scientists regarding the possibility of equipping ponds associated with natural watercourses differ significantly. So, Sivakov D. O. points out that the taking of such ponds to private ownership can have a positive impact, contribute to the cleaning of ponds and the restoration of their ecosystem (Sivakov 2007). Volkov G. A. believes that the equipment of such ponds, as well as their transfer to private property, is unacceptable (Volkov 2018). However, pointing out the shortcomings of the legal regulation of the arrangement of ponds on watercourses, the researchers practically do not propose specific changes in the current legislation that would be aimed at unconditional compliance by the owners of ponds with environmental, construction, sanitary and hygienic and other mandatory requirements.

## 11.5 Conclusion

Changes to Art. 40 of the Land Code of the Russian Federation, according to which equipment is permissible in private land holdings of ponds, including those formed by water retaining structures on watercourses, do not comply with the norms of the Water Code of the Russian Federation. The indications of the legislation that the

equipment of such ponds is carried out in accordance with environmental, construction, sanitary and hygienic and other special requirements on natural watercourses, are not sufficient for private persons, who often ignore the procedures for obtaining appropriate decisions and approvals, which require significant material costs from them.

We believe that the norms of the Land Code of the Russian Federation, permitting the arrangement of ponds on the territory of private land holdings, should be specified, providing for a number of obligations of land owners when equipping ponds formed by water retaining structures on watercourses and indicate that the unauthorized construction of ponds formed by water retaining structures on watercourses is prohibited. Similar norms should be included in the Water Code of the Russian Federation. In addition, at the level of the regions of the Russian Federation, it is necessary to include in the rule of land use and development, the norms for the arrangement of ponds formed by retaining structures on watercourses.

We believe that in this area it is necessary both to strengthen state control and supervision, and to widely involve environmental volunteer organizations to monitor small water bodies, as well as to identify the facts of illegal equipment of ponds associated with natural watercourses. To intensify volunteering in Russia, international experience should be taken into account. It is necessary to support environmental volunteer movements from the state, organize research activities of volunteers aimed at studying the state of small reservoirs and aquatic biological resources, as well as their accounting and registration.

In the context of limited state control and supervision associated with the spread of coronavirus infection, prolonged neglect of equipment problems in private landownership of ponds associated with natural watercourses can lead to irreparable consequences for natural water bodies.

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