# ANALYSIS OF LEGAL AND TECHNOLOGICAL CONDITIONS FOR ESTABLISHING SECURITY ZONES OF LINEAR STRUCTURES

## Viktor A. Kalyuzhin

Siberian State University of Geosystems and Technologies, 10, Plakhotnogo St., Novosibirsk, 630108, Russia, Ph. D., Associate Professor, Head of the Department of Geomatics and Real Estate Infrastructure, phone: (952)907-19-83, e-mail: kaluzhin@mail.ru

## Natalia O. Mitrofanova

Siberian State University of Geosystems and Technologies, 10, Plakhotnogo St., Novosibirsk, 630108, Russia, Ph. D., Associate Professor, Department of Cadastre and Territorial Planning, phone: (923)137-18-88, e-mail: kadastr-204@yandex.ru

#### Vladimir I. Norkin

Siberian State University of Geosystems and Technologies, 10, Plakhotnogo St., Novosibirsk, 630108, Russia, Ph. D. Student, phone: (913)703-86-86, e-mail: norkin@innsk.org

Zones with special area use condition play an important role on the territory both in the question of security and protection of engineering structures and formation of investment climate and effective land management. It is noted that during the last years there occurred significant changes in legislation, which allowed to refine the procedures for establishing, recording into state real estate register and observance of legal regime in part of restrictions (encumbrances). At the same time we observe low rate of their recording into the unified state real estate register, difficulties and sometimes impossibility for the determination of boundaries of legal regime on the territory of land parcels. The analysis of current legal acts including the practice of their application revealed a number of issues. The special place among them is taken by protection zones, which are designated for lined structures. Methodological basis of this research was practical experience of the authors in this field, as well as the theoretical foundations laid in the legislative framework, as well as the scientific research of the authors on this topic. The purpose of the work is to analyze approaches to solving current problems, as well as legal and technical and methodological bases for establishing the boundaries of protected areas of linear structures and recording information about them into the unified state real estate register. As a result, the main problems, tasks and solutions for establishing and describing the location of the boundaries of the protection zones of linear structures are identified, and further research directions are defined.

**Key words:** special area use condition zones, protection zone, coordinate description, land parcel, use restrictions, linear structure, cartographic basis.

#### **REFERENCES**

- 1. Federal Law of the Russian Federation of October 25, 2001 No. 136–FZ. Land Code of the Russian Federation. Retrieved from ConsultantPlus online database [in Russian].
- 2. Kalyuzhin, V. A, Odintsova N. V., Bessil'nykh, A. R., & Al'vinskiy Yu. V. (2012). Experience of entering protected cultural heritage units of Novosibirsk in the state property cadastre. In Sbornik materialov Interekspo GEO-Sibir'-2012: Mezhdunarodnoy nauchnoy konferentsii: T. 4. Ekonomicheskoe razvitie Sibiri i Dal'nego Vostoka. Ekonomika prirodopol'zovaniia, zemleustroistvo, lesoustroistvo, upravlenii nedvizhimost'iu [Proceedings of Interexpo GEO-Siberia-2012: International Scientific Conference: Vol. 4 Economic Development of Siberia and the Far East. Enviromental Economics, Management, Forestry Management and Property Management] (pp. 168-173). Novosibirsk: SSGA Publ. [in Russian].

- 3. Federal Law of the Russian Federation of December 29, 2004 No. 190–FZ. Town Planning Code of the Russian Federation. Retrieved from ConsultantPlus online database [in Russian].
- 4. Federal Law of July 13, 2015 No. 218–FZ. On state registration of real estate. Retrieved from ConsultantPlus online database [in Russian].
- 5. Karpik, A. P. (2004). *Metodologicheskie i tekhnologicheskie osnovy geoin-formatsionnogo obespecheniya territorii [Methodological and technological bases of geo-information support of the territory]*. Novosibirsk: SSGA Publ., 260 p. [in Russian].
- 6. Karpik, A. P., & Zharnikov, V. B. (2019). On concepts and patterns of development of land management, cadastre and land monitoring. *Vestnik SGUGiT [Vestnik SSUGT]*, 24(3), 141–157 [in Russian].
- 7. Kalyuzhin, V. A. Novoselov, Yu. A., & Karavaytsev, F. V. (2013). Experience of boundaries specification. *Izvestiya vuzov. Geodeziya i aerofotos"emka [Izvestiya vuzov. Geodesy and Aerophotography*], 4, 181–184 [in Russian].
- 8. Kalyuzhin, V. A, Odintsova, N. V., & Karavaytsev, F. V. (2012). Formalization approach to municipal formations boundaries specification. In Sbornik materialov Interekspo GEO-Sibir'-2012: Mezhdunarodnoy nauchnoy konferentsii: T. 4. Ekonomicheskoe razvitie Sibiri i Dal'nego Vostoka. Ekonomika prirodopol'zovaniia, zemleustroistvo, lesoustroistvo, upravlenii nedvizhimost'iu [Proceedings of Interexpo GEO-Siberia-2012: International Scientific Conference: Vol. 4. Economic Development of Siberia and the Far East. Environmental Economics, Management, Forestry Management and Property Management] (pp. 141–144). Novosibirsk: SSGA Publ. [in Russian].
- 9. Kalyuzhin, V. A, Odintsova, N. V., & Rozhkova, G. E. (2012). Experience of Novosibirsk boundaries specification. *In Sbornik materialov Interekspo GEO-Sibir'-2012: Mezhdunarodnoy nauchnoy konferentsii: T. 4. Ekonomicheskoe razvitie Sibiri i Dal'nego Vostoka. Ekonomika prirodopol'zovaniia, zemleustroistvo, lesoustroistvo, upravlenii nedvizhimost'iu [Proceedings of Interexpo GEO-Siberia-2012: International Scientific Conference: Vol. 4. Economic Development of Siberia and the Far East. Enviromental Economics, Management, Forestry Management and Property Management] (pp. 156-161). Novosibirsk: SSGA Publ. [in Russian].*
- 10. Shirina, N. V., & Kononova, O. Yu. (2014). The relevance of the problem of taking into account areas with special conditions of territory use. *Vestnik Belgorodskogo gosudarstvennogo tekhnologicheskogo universiteta [Bulletin of Belgorod State Technological University]*, 2, 135–138 [in Russian].

Received 04.12.2019

© V. A. Kalyuzhin, N. O. Mitrofanova, V. I. Norkin, 2020