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WATER CANAL SYSTEM IN PROJECTS, ACTIVITIES AND REPORTS OF POLISH AUTHORITIES IN THE 1830S-1860S

Summary. The aim of this article is to present the endeavours undertaken in the 19th century by diverse governing bodies to build or (rebuild) and eventually improve the Polish water canal system. These activities concerned commissions from the Second Council of State, the Administrative Council, the Third Council of State and, inevitably, the Board of Land and Water Communications/Board of the 13th District of Communications, among others. In addition, some of the general state reports, especially those focusing on water transport issues, are analysed in this article. All of the researched matters deal with the following canals: Augustów, Windawa, Brudnów and Wisła-Narew.

Keywords: water canal system, Kingdom of Poland, 19th century

1. INTRODUCTION

The fall of the November Uprising of 1831 represented an obvious and direct threat to the very existence of the relatively large number of Polish transport projects of the period, especially the costly and politically sensitive water transport network. In the end, the future of the Augustów Canal was, at least, secured. Meanwhile, only the reactivation of the Third Council of State in the early 1860s resulted in the proper reopening of the issue concerning the water transport network in the country and its adjacent territories. This article will therefore examine the fate of the Augustów Canal after 1831, with particular emphasis on the struggle for its preservation shortly after the November Uprising, as well as works concerning

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its preservation during the time of transport authorities' control and official requests from the Third Council of State for a possible new use for it. Attention will be also focused on further possibilities of rebuilding the Windawa Canal and digging the Wisła-Narew Canal and the so-called Brudnów Ditch (Canal).

2. STRUGGLE FOR THE PRESERVATION OF THE AUGUSTÓW CANAL AFTER THE FALL OF THE NOVEMBER UPRISING OF 1831

According to the estimated budgets ("anschlags") for the original construction of the Augustów Canal, the overall cost of completing this technical project was expected to be 1,152,238 roubles and five kopecks. As early as the end of 1830, however, when it was obvious that far more work was needed to complete the entire canal, the sum required for its construction increased to at least 1,595,598 roubles and 57.5 kopecks².

After losing the November Uprising at the end of December 1831, the Director of the Directorate of Roads and Bridges of the subdued Kingdom of Poland, Franciszek Christiani, received a command from the Chief of the Muscovite First Active Army, Field Marshal Ivan Paskievich, ordering him to make an itinerary for constructing and preserving works on the Augustów Canal. A further task for Christiani was to establish new job positions for canal services. Accordingly, on 29 December 1831, Warsaw's Government Commission of Internal Affairs and Police stated a report on this matter, which was then presented on 30 December the same year to the Interim Government of the Kingdom of Poland. This authority, taking into account that previously the Augustów Canal had been under the direct supervision of the (now-defunct) Polish Government Commission of War, decided that, in the immediate post-uprising period, its management was to be come under the civil administration of the state (namely, the Government Commission of Internal Affairs and Police), while reaching the conclusion that the Augustów Canal itself could no longer be maintained, as originally envisaged, out of the so-called "separate road funds".

Against this backdrop, the Polish Interim Government decided to turn, via its President, Theodor Engel, to Field Marshal Ivan Paskievich, with questions that concerned the very provisions made by the Governor as to the further "fate" of this canal. As it was assumed that Paskevich would decide that management of the Augustów Canal would eventually pass to Warsaw's Directorate of Roads and Bridges (the government institution that would have been responsible in any case for completing the overall construction of the canal, or at least for providing the financial tools of its subsistence), members of the Interim

² Central Archives of Historical Records in Warsaw. Third Council of State of the Kingdom of Poland (1862, 1863). Signature 256: 83.

Government were especially interested in what Paskievich had to say about the exact sources of adequate funding for this canal. At the same time, it was understood that the general oversight of these funds would be left in the hands of the official financial ministerial controller of the Government Commission of Internal Affairs and Police, as the parent body to the Directorate of Roads and Bridges. After the answers were not provided in full in a timely manner, Governor Paskievich formally decided to temporarily transfer the management of the Augustów Canal to the above-mentioned Director of Directorate of Roads and Bridges, Franciszek Christiani³.

Despite Paskievich's preliminary decisions on the Augustów Canal issue, on 27 January 1832, Count Aleksander Strogonov, Director General of the Government Commission of Internal Affairs and the Police repeated the overarching question about the financing of works carried out in relation to this canal. Strogonov further mentioned that, "based on the explanations given to him privately by Major General Maltzki, under whose guidance... the Augustów Canal was carried out", the total amount of costs for the maintenance and repair of the canal were officially assessed, at this time, as being 404,000 Polish zlotys, when in fact the actual expenditure would have been much larger. Hence, the Director of the Commission of Internal Affairs stated that, in his opinion, there was "even more need to draw the government's attention to the utmost necessity to determine the appropriate funds for the Augustów Canal" in the overall budget for the Kingdom of Poland. Strogonov noted that, otherwise, one would have to immediately stop any works on the development and maintenance of this canal, which would entail the utter destruction of "so costly an enterprise", or would increase the need to continue any works related to the canal at some point in the future, which would occur even more costs than previously expected. In response, the President of Interim Government, Theodor Engel pointed out that Governor Paskievich had decided that "the sum needed for this purpose would be placed in the budget... for the Kingdom". As such, on 27 January 1832, the Interim Government ordered the sum of 400,000 zlotys to be included in the 1832 Polish state budget for further works to be carried out within the next 12 months in relation to the Augustów Canal⁴. Thus, as we can see, Field Marshal Paskievich took an extremely long time in deciding to continue such works.

Despite this already considerable delay, the Polish authorities still had to wait for a final decision from Paskievich on the most important issue on the possible further financing of the canal. In this state of relative uncertainty, on 28 February 1832, the Interim Government, acceding to the request from the Director of the Government Commission of Internal Affairs and Police, decided

³ Central Archives of Historical Records in Warsaw. The Administrative Council of the Kingdom of Poland (1831, 1832). Signature 20: 636-637.

⁴ Central Archives of Historical Records in Warsaw. The Administrative Council of the Kingdom of Poland (1831, 1832). Signature 21: 373-367.

to transfer the sum of 5,000 Polish zlotys, from its financial reserve for the general budget of 1832, for the purpose of “most urgent works around... the channel, to start from the onset of spring”⁵. On the other hand, on 2 March 1832, Alexander Strogonov (showing once again in this case his unique determination and stubbornness) requested that Warsaw’s Interim Government allocate additional funds for the Augustów Canal. As a result, following a decision by this government, Warsaw’s Commission of Revenue and Treasury received strict orders to transfer an additional sum of 1,428 Polish zlotys and one grosh for this purpose. Besides, the Interim Government authorized the Ministry of Revenue and Treasury to create, from within the main coffers of Augustów Province, the special loan worth 22,546 Polish zlotys and 20 groshes, which were intended for payment during the first four months of 1832 of officials and other workers employed at any of the workplaces along the Augustów Canal.

Further decisions with regard to this canal were taken at the end of March 1832 by the revived Administrative Council of the Kingdom of Poland. Taking into account the inclusion of 400,000 Polish zlotys in the state budget of 1832 to be used on ongoing works related to the canal, the Council (in addition to a previous decision of the Interim Government, made on 28 February 1832, and in accordance with the rate determined by the Government Commission of Revenue and Treasury, dated as of 24 March of the same year) decided that the sum of 5,000 Polish zlotys, which was intended for temporary canal-related jobs, was to be definitively collected, not from the so-called state budget reserve fund (as was originally agreed), but from the fund “of appropriate character”. In this way, the Administrative Council was able to reduce the fund, which had been originally agreed in the winter of 1831/1832 for any activity on the Augustów Canal. What was much more important was the simple fact that this formal decision by the new government of the Kingdom finally confirmed its will in supporting the final resumption of the Augustów Canal works, which had been “previously carried out with the contribution of huge effort and spending a lot of money”⁶.

Finally, again under the authority of the Administrative Council, in 1834, the Bank of Poland took over the entire process of supervising the implementation of further works on the Augustów Canal⁷.

⁵ Central Archives of Historical Records in Warsaw. The Administrative Council of the Kingdom of Poland (1831, 1832). Signature 22: 199.

⁶ Central Archives of Historical Records in Warsaw. The Administrative Council of the Kingdom of Poland (1831, 1832). Signature 22: 547-548.

⁷ Central Archives of Historical Records in Warsaw. The Administrative Council of the Kingdom of Poland (1834, 1838). Signature 60: 253.



Fig. 1. Aleksandr Grigorievic Stroganov⁸

As for important proceedings regarding the development of the canal during the 1830s, one should admit that the Government Commission of Internal Affairs, Public Enlightenment Affairs and Spiritual Matters indicated in its report for 1838 that, after the completion of the last lock built on the Hańcza River “called Hardwood”, the Augustów Canal was firstly expected to be completely open as an inland waterway the following year. Again in 1839, the Ministry of Internal Affairs intended to submit the so-called channel tariffs for approval by the Administrative Council. Such fees, levied on ships passing through the canal, were to be used to repay in the future the sums “borrowed” by the Bank of Poland for the “completion of that channel”. Additionally, in 1838, Polish administrative authorities completed the processing of claims submitted by local individuals, demanding the payment of compensation for their lands occupied by the state for the construction of the Augustów Canal⁹.

In this way, in the period stretching from December 1831 until the end of 1838, it was possible not only to save the Augustów Canal from complete closure or partial degradation, for its construction to almost reach the final stage. It is hard to overestimate the role of Count Aleksander Stroganov, who was both a Russian General and a Minister of the Kingdom of

⁸ Aleksandr Grigorievic Stroganov. Painted by Piotr Fedorovic Sokolov (1826). Available at: <https://pl.pinterest.com/pin/524950900292275893.A>.

⁹ Central Archives of Historical Records in Warsaw. The Second Council of State of the Kingdom of Poland (1834, 1838). Signature 105: 35. See also: Marek Rutkowski. 2003. *Zmiany strukturalne w Królestwie Polskim wczesnej epoki paskiewiczowskiej. Studium Efektywności Administracyjnej, Społecznej i Gospodarczej Zniwolonego Państwa. Tom 1*: 369-374. Białystok: Publishing House of University of Finances and Management in Białystok.

Poland at the same time, for his stubborn endeavours in providing the funds needed for the canal's further maintenance, especially in early 1832.

3. OFFICIAL REPORTS ON AUGUSTÓW CANAL AFTER THE TRANSFER OF THE POLISH WATER NETWORK TO THE MANAGEMENT OF THE BOARD OF LAND AND WATER COMMUNICATIONS/BOARD OF THE 13TH DISTRICT OF COMMUNICATIONS

Despite bold announcements, the practical process of rafting goods (mostly timber) and floating ships on the Augustów Canal began not in 1839 but 1840. The final construction costs for this enterprise, which formally finished in 1844, amounted at the time to a sum exceeding two million roubles. To this large sum, one obviously needed to add interest rates, which the State Treasury was obliged to pay back to the Bank of Poland for the loan granted previously for the purpose of building the canal¹⁰.

In 1844, the management of the Augustów Canal (with a length of 98 versts) was transferred to the then Board of Land and Water Communications of the Kingdom of Poland, which was subsequently known as the Board of the 13th District of Communications from December 1846. The most important actions undertaken by transport services dealing with this canal were highlighted as part of periodic reports on the national administration system, as well as presented in brief on pages of the officially printed state press. As we discovered from the first report of this era, issued in 1844, the year the functioning of the Augustów Canal came under the supervision of the Polish transport authorities was far from successful, mostly due to floods that took place in August and September of that year, which generally prevented any repair works from being carried out on the canal in the expected time frame. Thus, these management activities were postponed to a later date in 1844, which resulted in the limited capacity of the channel, as the movement and drifting of items could not be conducted throughout the entire "navigable period". Nevertheless, despite these obstacles, all the requiring repairing works were completed in 1844, which, according to the official estimated budgets ("anschlags"), amounted to the sum of 5,999 silver roubles and 13 kopecks¹¹.

Table 1. Funds allocated for conservation works on the Augustów Canal, 1845-1852¹²

Year	Allocated funds
1845	8,805 silver roubles
1846	13,066 silver roubles
1847	6,130 silver roubles
1848	7,537 silver roubles

¹⁰ Central Archives of Historical Records in Warsaw. The Third Council of State of the Kingdom of Poland (1862, 1863). Signature 256: 83.

¹¹ *Gazeta Rządowa Królestwa Polskiego*, 1/13 June 1849, No. 128: 1004.

¹² *Gazeta Rządowa Królestwa Polskiego*, 1/13 June 1850, No. 130: 973; *Gazeta Rządowa Królestwa Polskiego*, 20 September/2 October 1850, No. 220: 1759; *Gazeta Rządowa Królestwa Polskiego*, 28 March/9 April 1851, No. 80: 543; *Gazeta Rządowa Królestwa Polskiego*, 16/28 May 1851, No. 118: 892; *Gazeta Rządowa Królestwa Polskiego*, 6/18 February 1852, No. 37:227; *Gazeta Rządowa Królestwa Polskiego*, 4/16 February 1853, No. 35: 204; *Gazeta Rządowa Królestwa Polskiego*, 25 September/7 October 1853, No. 223: 1674; *Gazeta Rządowa Królestwa Polskiego*, 7/19 September 1854, No. 205: 1718.

1849	8,628 silver roubles
1850	10,815 silver roubles
1851	16,831 silver roubles
1852	4,515 silver roubles

In 1855, the full cost of ensuring the proper functioning of the Augustów Canal was estimated at 12,474 silver roubles. When repairing and proper maintenance of the canal was required in 1856, the Polish transport authorities decided to commission a programme of repair works totalling 10,325 roubles and 63.5 kopeck. Salaries paid the same year to canal servicemen were at the level of 4,515 roubles. In 1857, a programme of works for the proper functioning and maintenance of the canal was allocated 7,234 roubles and 1.5 kopeck; in following year, this sum needed was 4,568 roubles and 82.5 kopecks. The costs of paying wages to canal workers and administration staff were at the level of 4,515 roubles in 1857 and the same in 1858.

Supervision over Augustów Canal inevitably included the proper maintenance of the navigation along parts of the Biebrza River. The sums spent on maintenance work in this respect were 252 roubles in 1857 and 2,902 roubles in 1858.

It is worth mentioning that, in 1859, the Augustów Canal was fully navigable over a distance of 98,179/500 verstes. To be more precise, the ability to navigate the canal in full lasted from 3 or 15 April until 1 November, or five- to six-month period. During this period, maintenance works on the canal were allocated 7,998 roubles and 57 kopecks, while the salary budget for employees of all kinds relating to the administration of the canal stood at 4,515 roubles. The regulatory Biebrza River proceedings, considered as part of the canal system, and their control also entailed expenses of 349 roubles and 11 kopecks¹³.

Taking into account the data from official state reports, generally speaking, funds spent on the functioning of the Augustów Canal in the period 1855-1859 have been calculated in the amounts presented in the following table.

Table 2. Overall funds allocated to the functioning of Augustów Canal transport network (including maintenance and salary budgets), 1855-1859¹⁴

Year	Cost of maintenance, salaries and regulations
1855	12,474 silver roubles
1856	14,840 silver roubles & 63.5 kopecks
1857	12,001 silver roubles (including regulatory works on part of the Biebrza River)
1858	11,985 silver roubles & 82.5 kopecks (including regulatory works on part of the Biebrza River)
1859	12,862 silver roubles & 57 kopecks (including regulatory works on part of the Biebrza River)

¹³ *Gazeta Rządowa Królestwa Polskiego*, 7/19 September 1861, No. 208: 1414

¹⁴ *Gazeta Rządowa Królestwa Polskiego*, 13/25 January 1856, No. 9: 61; *Gazeta Rządowa Królestwa Polskiego*, 23 September/5 October 1860, No. 217: 1757; *Gazeta Rządowa Królestwa Polskiego*, 7/19 September 1861, No. 208: 1414

Here are two phenomena that are conspicuous. First, it can be easily observed that, in of 1845, 1848, 1849 and especially 1852, expenditure on the maintenance of the Augustów Canal was greatly lowered. Second, one needs to admit that, despite control on the part of the canal transport network consisting of the Biebrza River being maintained by St. Petersburg's Board of Management for Road Communications and Public Edifices, Warsaw's transport authorities made (at least in the period 1857-1859) some efforts to regulate parts of this water flow. These actions, however, were generally limited and carried out at low cost.

4. REQUESTS TO INITIATE PROCEEDINGS ON MAKING AUGUSTÓW CANAL MORE ECONOMICALLY EFFICIENT/(RE)CONSTRUCT AND IMPROVE OTHER CHANNELS

Following the reopening of the Council of State of the Kingdom of Poland in 1861, requests for improvements to the technical and administrative functioning of Augustów Canal, as well as calls to improve the economic benefits of the canal, were received in autumn of the following year. These proposals were accompanied by an increasing number of suggestions concerning the construction or reconstruction of other canals, both within the borders of Kingdom of Poland and located in territories adjacent to it.

Commencing its research on these matters, the Department of Tax Administration of the Third Council of State presented a comprehensive set of accurate data. Moreover, members of the Department presented in their report a shortened version of the genesis of the Augustów Canal, writing that the very idea of building a canal was taken as early as 1824, mostly in order to facilitate trading activities between Warsaw and the tsarist ports on the Baltic Sea. As was emphasized, the main goal was, of course, to bypass Prussian customs and undermine the dominant position of Gdańsk (Danzig) traders, who were seen as incumbents to be held accountable for restricting local Polish trade. It was then noted that, originally, the canal was scheduled to join the Narew and Niemen Rivers (this connection was to have started in the Niemnowo locality near the city of Grodno, leading to Dembie Village, via the Augustów Canal, where the Biebrza River would start to flow into Narew watercourse). Out of the Niemen River, tsarist transport authorities intended to build the so-called Windawa Canal, leading up to the Latvian Baltic coast, in the Port of Windawa (Ventpils). Furthermore, referring to the idea of constructing other partially artificial water transport networks, the Department of Tax Administration also stated that another water channel was intended to connect Warsaw with the Narew River, which was planned in the Upper Serock.

Members of the Department of Tax Administration reminded readers in their short report that, while construction works on a prospective canal linking the Vistula and Narew Rivers were never undertaken at any stage, the Windawa Canal was at least partially built. Nevertheless, this artificial watercourse appeared to be unsuitable for vessels that typically sailed on the Augustów Canal “because of the smaller size of the locks [there]”¹⁵.

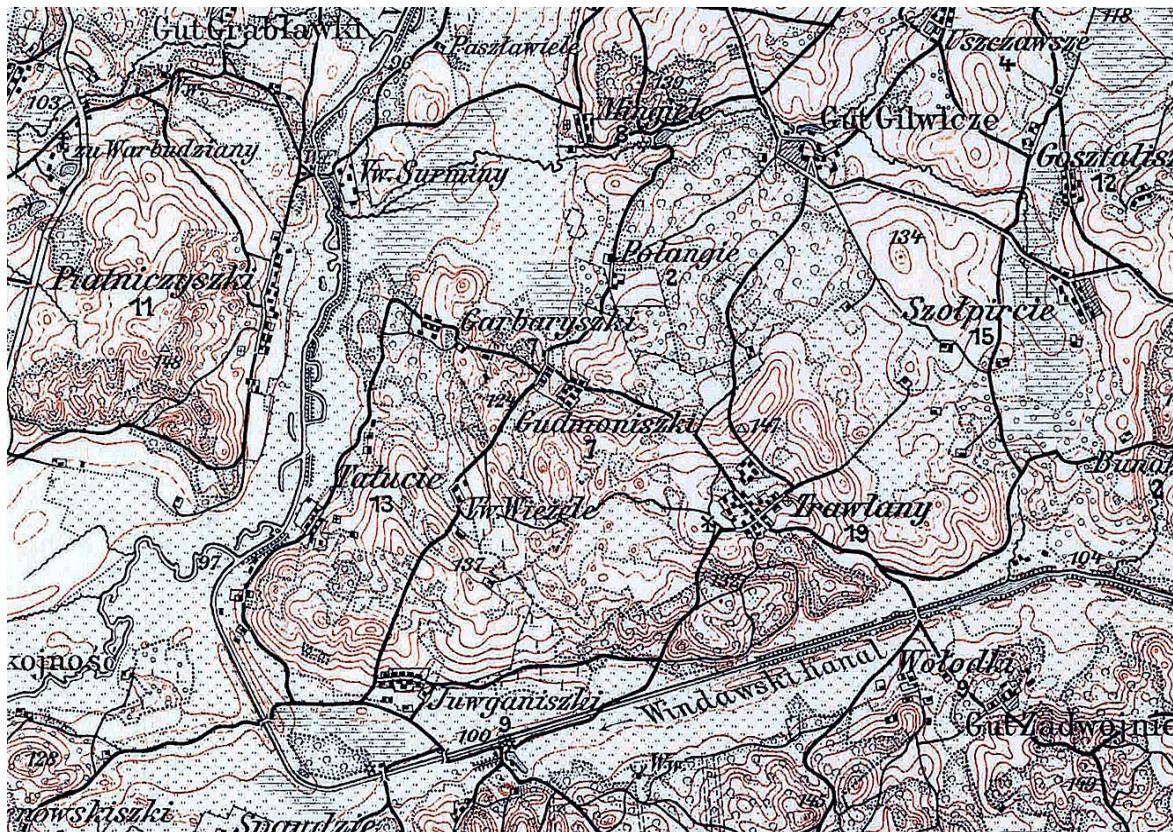


Fig 2. Windawa Canal at its critical point between the Dubissa and Wenta Rivers¹⁶

It was recalled that, under these circumstances, the Presiding Director of Warsaw’s Government Commission of Revenue and Treasury, Roman

¹⁵ Central Archives of Historical Records in Warsaw. The Third Council of State of the Kingdom of Poland (1862, 1863). Signature 256: 83. *Fetting Piotr Ivanovic*, <http://dic.academic.ru/dic.nsf/ruwiki/1849081>. *Russkaia Imperatorskaia Armia. 92-i Piechotnyj Piecerskij Polk*, <http://regiment.ru/reg/II/B/92/1.htm> [accessed 5 January 2017]. Works on the Windawa Canal were primarily undertaken during 1827-1830 by Russian regiments comprising the First Infantry Division and including the 92nd Pechersk Infantry Regiment. The builder of this canal, who essentially stopped these works, was an Engineer Major of the First Class of Seventh District of Communications of the Russian Empire, Pierre Frederic de Fetting, a Frenchman from Berlin. In the period 1829-1834, de Fetting managed most of the building work on the Windawa Canal, initially as an Engineer Major, then as a Lieutenant Colonel Director. He settled in Russia in 1808.

¹⁶ *Karte des Westchlisen Ruslands, M 18.Szawle*. 1892-1921. Available at: http://www.mapywig.org/m/German_maps/series/100K_KdWR/400dpi/KdWR_M18_Szawle_400dpi.jpg.

Furhmann, sent an official note to the Chief Executive of Communications of the Russian Empire (who was, at the same time, formally in charge of the construction of the Windawa Canal), Adjutant General Count Karol Fedorowicz Toll, asking him “whether the [Windawa] Canal would be finished, and local of what size/capacity could go on there”. General Toll sent his response to Furhmann on 4/16 September 1837 in a letter (no. 1,366), in which he strictly stated that “the width of the channel is applied to the abundance of water, which had to feed it, and [because of that] it would be inappropriate to make it wider”. The Chief Executive of Communications of the Russian Empire also described the then poor conditions of existing parts of the Windawa Canal, which was ultimately never completed.

Having been reminded about this short, but decisive, piece of information, members of the Department of Tax Administration of the Third Council of State emphasized that the Augustów Canal, originally designed as part of an inner water route linking the Vistula River to the Baltic Sea, had finally become only an “insignificant internal communication [tool]”, especially when part of the Biebrza River urgently needed to be significantly deepened by the start of the 1860s.

The perceived negative impact of the Augustów Canal on the economy of the Kingdom was strengthened by data concerning possible profits generated by this canal. These financial results (showing the true level of the Augustów Canal’s usefulness) were, according to authors of the Third Council of State proposals of 1862, relatively modest. Prior to the early 1860s, these profits had reached their highest level, surprisingly, in 1841, when they amounted to the sum of 2,505 roubles and 31 kopecks¹⁷.

Table 3. Profits generated from the Augustów Canal in 1841 and 1859-1861¹⁸

Year	Sum in roubles & kopecks
1841	2,505 roubles & 31 kopecks
1859	283 roubles & 70 kopecks
1860	736 roubles & 75 kopecks
1861	286 roubles & 75 kopecks

Meanwhile, the maintenance costs of the Augustów Canal in the draft version of the budget for 1863 included the following sums – Table 4.

¹⁷ Central Archives of Historical Records in Warsaw. The Third Council of State of the Kingdom of Poland (1862, 1863). Signature 256: 83-84.

¹⁸ Central Archives of Historical Records in Warsaw. The Third Council of State of the Kingdom of Poland (1862, 1863). Signature 256: 84.

Table 4. Costs of maintenance of Augustów Canal in 1863¹⁹

Purpose of funds	Sum in roubles
Canal	5,051
servicemen/administration	4,500
Direct maintenance and repair	
Total	9,551

Given the existing facts, the Department of Tax Administration of the Third Council of State acknowledged in 1862 the limited usage and contribution of the Augustów Canal to the national economy of the Kingdom of Poland, as well as the “adverse results for the Treasury” resulting from the prevailing need to constantly provide financial support for its maintenance. It is not surprising, then, that the main cause of this unfortunate state of affairs occurred in autumn 1862, when attention was drawn to the incomplete construction of an artificial connection linking the Vistula and Narew Rivers, via the Windawa Canal, with the Baltic Sea (as well as the unfortunate construction of this canal’s sluices to standards that did not completely comply with the demands for vessels floating on the waters of the Kingdom of Poland).

Accordingly, in 1862, the Department of Warsaw’s Council of State, in a formal Polish Government statement to Tsar Alexander II, requested the issuance of an order calling for the Board of Road Communications and Public Edifices of Russian Empire, together with the Board of Land and Water Communications of the Kingdom of Poland, to “recognize [and analyse] the object of the Windawa Canal”. Another Council of State’s suggestion was to order the Polish Board of Land and Water Communications to identify any possibilities of building a new canal between the Narew and Vistula Rivers, as well as deepen the Biebrza River²⁰. In their response, members of the Department of Tax Administration expressed, seemingly, a common belief concerning the improper use of the main water channel of the Kingdom, as well as demanding the (re)building of the missing parts of the entire network of canals leading in a north-easterly direction, including this channel located beyond the borders of the then Polish state.

In his (undated) response, as the Head of Transport Authorities of the Kingdom, Major General Stanisław Kierbedź, evaluated in detail all the requests from the Department of Tax Administration of the Third Council of State

¹⁹ Central Archives of Historical Records in Warsaw. The Third Council of State of the Kingdom of Poland (1862, 1863). Signature 256: 84.

²⁰ Central Archives of Historical Records in Warsaw. The Third Council of State of the Kingdom of Poland (1862, 1863). Signature 256: 84.

dealing with improving the usefulness of the Augustów Canal and calls for the further construction of other water channels²¹. First of all, Kierbedź referred to the idea of completing the construction of the Windawa Canal, while reiterating that the failure to do so had been already repeatedly indicated as the main reasons why only a small income had been generated by the Augustów Canal itself. He even confirmed that these financial benefits, in the early 1860s, had reduced even further, mostly because of salt deliveries destined for state salt warehouses of the Kingdom being supplied via local watercourses.

Ostensibly, at least, Kierbedź supported this widespread view held by Polish Government officials, according to whom it seemed likely that the possible (re)opening of the Windawa Canal would provide “the opportunity for [Polish] sailing ships to proceed directly to the Baltic Sea within the boundaries of the Empire”, thereby directly leading to an expected increase in the number of cargo ships heading in this direction. Such an idea, of course, suggested that ships sailing on the Augustów Canal would travel via the Windawa Canal, before flowing directly into Baltic Sea port at Windawa/Ventspils. The exact water route between the two channels would lead out of the Niemnowo locality near Grodno, then onto Kowno (Kaunas) and the Windawa Canal²².

However, in Kierbedź’s mind, the Windawa Canal, at the time of writing of his report, “was showing in its image only a mere shadow of the former works, endeavours and achievements”. To completely restore, or even to begin any water communication channel via this route, one would need to start work virtually from scratch. The costs of such an undertaking would, in the opinion of Stanisław Kierbedź, be extremely high. The Chief Executive of Land and Water Communications of the Kingdom of Poland also doubted the usefulness of navigating via this route, pointing to local navigational difficulties, as the Windawa Canal, at the point in its main water basin division, had an inadequate number of watercourses to power the (entire) running of the channel.

In addition to the negative arguments given above, Kierbedź stressed that ships coming from the Augustów Canal to the Windawa Canal would have to flow along the Niemen River on its section from Grodno to Kowno, where some reefs and water thresholds were visible. This had to be regarded as another major obstacle in the course of canal communication, whose removal would definitely require further significant financial outlay.

The Major General also acknowledged that the situation put the emergence of new railways in the region at stake, such that their construction could be hindered by any further digging of the Windawa Canal, especially given that any navigation in this direction was far less necessary than before. Quoting

²¹ Central Archives of Historical Records in Warsaw. The Third Council of State of the Kingdom of Poland (1862, 1863). Signature 256: 85- 86.

²² Central Archives of Historical Records in Warsaw. The Third Council of State of the Kingdom of Poland (1862, 1863). Signature 256: 86 -87.

Stanisław Kierbedź, the St. Petersburg Railway (with its branch line to Königsberg/Królewiec), which crossed the Niemen River close to the towns of Grodno and Kowno, would be, in a way, “replacing water communication on the Niemen River”, while the newly designed railway to Lipawa/Liepāja “is replacing the Windawa Canal”.

Summing up his arguments in this regard, Major General Stanisław Kierbedź bluntly stressed that any restoration of the already built parts of the Windawa Canal to improve operational conditions, as well as the construction of new sections, would require significant spending by the Treasury of the Russian Empire “without corresponding and adequate benefits”. According to the Head of the Government Transport Authority of the Kingdom, any possible contacts concerning the matter of (re)building the Windawa Canal with the Board of Road Communications and Public Edifices of the Russian Empire were completely useless and would not bring about any solutions “which would be probably expected” by the Department of Tax Administration of the Third Council of State.

From this perspective and with such a presumption on the part of Kierbedź, the Augustów Canal was to remain only as a useful local water-based thoroughfare. Its sound management could bring about benefits of a new kind, provided there was “proper maintenance and usage of every drop of water flowing in the canal”, which openly alluded to prior initiatives of Warsaw’s Board of Land and Water Communications that had also been supported and confirmed by the Administrative Council. Finally, as the ultimate counterargument for the resumption of further construction of the Windawa Canal, the Chief Executive of Transport Services in the Kingdom cited the previous circumstances in which it was decided to build the Augustów Canal, which were now fully outdated in a political and economic sense; in other words, the construction was as a kind of economic response to the raising of Prussian cereal and transportation fees in early 1820s. Nevertheless, General Kierbedź did not fail to note the positive impact of the construction of the Augustów Canal on subsequent lowering of Prussian duties and other charges, as well as the general failure of the trade war waged by Berlin against the Kingdom of Poland²³.

The Head of Warsaw’s Transport Authorities referred, in turn, to the order from the Department of Tax Administration of the Third Council of State to the Board of Land and Water Communications to present proposals for deepening the Biebrza River, which was necessary to the providing a water transport route leading to a basic part of the Augustów Canal. Acknowledging the comments, Kierbedź described the Biebrza River as being “a sort of extension of the

²³ Central Archives of Historical Records in Warsaw. The Third Council of State of the Kingdom of Poland (1862, 1863). Signature 256: 87-89.

Augustów Canal, which, up to its estuary and the Narew River, was managed by two different state organisms”. On the route stretching from the basic Augustów Canal to Goniądz, the Biebrza waterway remained under the supervision of the authorities and budget resources of the Kingdom; from Goniądz to the point where the Biebrza River flowed into the Narew River near the locality of Wizna, this stretch of water was kept “for the proper functioning of the watercourse” by the Treasury and officials of the Russian Empire.

In opinion of the Major General, appropriate and “easy” rafting on the first of these sections of the Biebrza River was introduced between 1848 and 1852, after several fascine works had been completed at a cost of 28,751 roubles. For the sake of proper maintenance of existing fascine improvements, in 1852, Warsaw’s Board of 13th District of Communications of the Russian Empire wrote to the Tsarist Governor of the Kingdom, Field Marshal Ivan Paskievich, a proposal to include (from this moment forth) in the annual budget of the transport authorities the sum of 1,515 silver roubles and 15 kopecks to be used for this very purpose. In response, while Paskievich expressed his negative view on the matter, the Field Marshal allowed the Administrative Council to allocate, by itself, suitable funds for this sole purpose on an annual basis.

As such, in the period between 1853 and 1861, it was possible to obtain from the Polish Government at least partially adequate funds for the basic maintenance of fascine works on the Biebrza River, albeit only on the section from the Augustów Canal to the town of Goniądz. In reality, during these nine years, the authorities succeeded in formally allocating the sum of 7,241 silver roubles, which meant that they acquired significantly less funds than originally expected. Finally, it transpired that, between 1853 and 1861, even less was spent on repairs to this section of the Biebrza River, that is, 6,394 silver roubles (statistically counting 710 roubles and 44 kopecks per year), which was about half of what had been originally expected. This money had been used entirely for the specified purpose.

In the opinion given by General Kierbedź in 1862, during the 1860s, rafting continuously took place on the section of the Biebrza River between the Augustów Canal and Goniądz, especially where there was at least a depth of 6 ft in the Biebrza watercourse, which was accepted as suitable for this type of shipping. The temporary lack of any repairs to the “Polish” section of the Biebrza in 1862 was due to the fact that allocated funds were needed to cover the salaries of local transport enforcement officers, at a cost of as much as 216 silver roubles. On the other hand, many of the other fascine works on the banks of the Biebrza River needed to be repaired in 1863, mostly because there had been no proper protection for many years, as costs to address this steadily increased on an annual basis by at least 5,000 silver roubles.

Much to our surprise, Stanisław Kierbedź pointed out the evident lack of any precise knowledge on the Board of Land and Water Communications of the Kingdom of Poland on the matter of the actual state of the Biebrza River's current from the town of Goniądz to its confluence with the Narew River, namely, in its "Russian" section. Such a ridiculous situation was overtly dealt with by the Head of the Polish Transport Authorities, who withdrew this section of the Biebrza River from the scope of Polish responsibility, instead putting it under the strict supervision of the Board of Road Communications and Public Edifices of the Russian Empire. General Kierbedź could only note here that "in this section [of the Biebrza], raftsmen do not complain about any difficulties with their rafting". This statement was, however, considered as an obvious admission of the absence of any real knowledge of any fascine or deepening works possibly undertaken by the Russians (or rather the Russian invading army) on the stretch of "their" part of the Biebrza River.

Therefore, based on only partially accurate data, the Head of the Polish Transport Authorities defended his views, acknowledging that the Biebrza River did not require any serious deepening. Eventually, Kierbedź chose to focus on maintenance works on the Biebrza exclusively in relation to the previous repairs along various stretches of the river, the cost of which would be permanently included in the budget of Warsaw's Communication Administration (this was an amount identical to that proposed back in 1852, i.e., 1,515 silver roubles and 15 kopecks per year²⁴).

In his response to several demands made by the Department of Tax Administration of the Third Council of State, the Chief Executive of Land and Water Communications of the Kingdom finally acknowledged the Polish authorities' proposal to return to the idea of constructing a completely new canal between the Narew River (starting in the Zegrze locality) and the capital, Warsaw. Recalling that this project was originally suggested as far back as 1828, he mentioned that the reason why the idea had resurfaced all of a sudden in 1857 was due to a new canal initiative from Adolf Kurtz. This occurred at the same time as when government administrative authorities became interested in a project to drain a vast expanse of mud lying near Praga, which was planned to take place in the form of the deepening of the so-called Brudnów Ditch (in the vicinity of Praga). After several substantive conferences with transport officials, Kurtz promised to build, within the span of three years and at his own expense, a wholly "equipped" and fully functioning sluice channel, located between Praga and Zegrze. In return, Kurtz formally obtained a government concession to using the watercourse for up to 40 years, along with the permission to have full use of the adjacent waters and collect fees from people rafting or drifting their products through this watercourse. General Kierbedź acknowledged that the

²⁴ Central Archives of Historical Records in Warsaw. The Third Council of State of the Kingdom of Poland (1862, 1863). Signature 256: 89-94.

future opportunities offered by “this channel, which would link the Vistula River, could be at the expense of the government”.

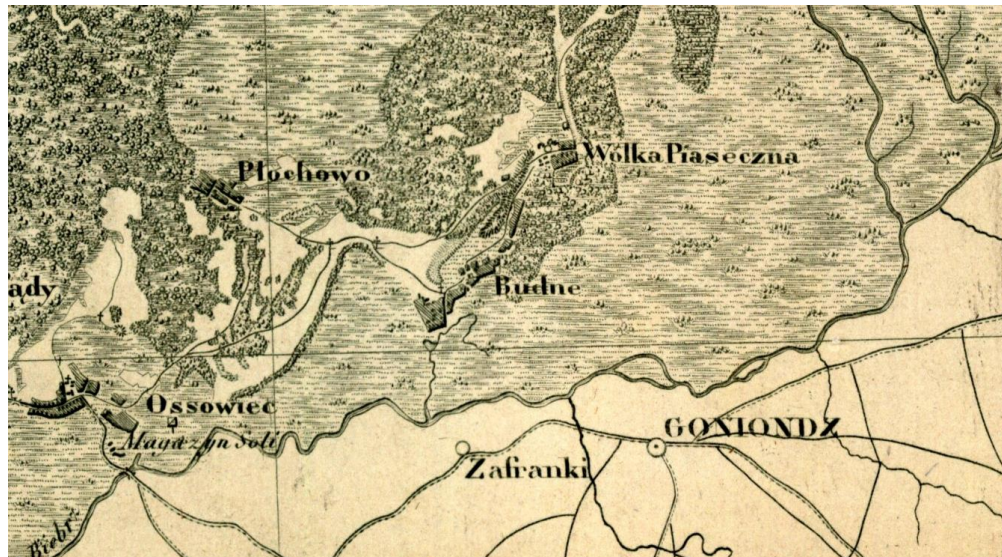


Fig 3. Biebrza River in the vicinity of Goniądz/division line between Polish and Russian responsibility for this river²⁵

To sum up his position on the idea of building the Brudnów Canal (Ditch), the Head of Polish Communications emphasized the synchronicity of Kurtz’s and the Polish Government’s proposals, as these directly alluded to, or even coincided with, the concept of draining Praga’s mud fields, which was the project that mostly interested Warsaw’s Government Commission of Revenue and Treasury. After checking the conditions and possibilities of local ground levelling, the Commission of Revenue expressed no objections to the concept presented by Kurtz. Consequently, when Kierbedź submitted his response to the request from the Department of Tax Administration of the Third Council of State for the construction of the Zgierz-Warsaw Canal, Kurtz’s was still being deliberated on and examined in the offices of the Board of Land and Water Communications, where it was the subject of a detailed analysis. As such, Stanisław Kierbedź declined to take a literal position in response to the issues described here²⁶. Such a position, moreover, was in harmony with his previous conclusions, in which Kierbedź not only found a lack of necessity to (re)build the Windawa Canal, but also saw no need to extensively deepen the Biebrza River.

²⁵ *Mapa Kwatermistrzostwa. CP-43. Augustów. 1850.* Available at: http://www.mapywig.org/m/Polish_maps/series/126K_Map_KwatermistrzostwaCP-43_Kol_VI_Sek_IV_August%C3%B3w.jpg.

²⁶ Central Archives of Historical Records in Warsaw. The Third Council of State of the Kingdom of Poland (1862, 1863). Signature 256: 94-96.

5. CONCLUSIONS

Derived from the material presented in this article, it is possible to draw a few interesting conclusions. Firstly, it seems obvious that, after the initial difficulties in obtaining proper funding for the ongoing building of the Augustów Canal, which might have threatened to end, or at least of partially degrade, the project, we can state that Count Strogonov was someone who, among others, after the fall of the 1831 November Uprising, was strongly supportive of the further existence of this canal. Secondly, as for the general view concerning the Augustów Canal in the period of its maintenance by the Polish transport authorities, i.e., since 1844, we can observe that there were extremely low levels of expenditure allocated for its repairs (especially in 1845, 1848, 1849 and 1852), as well as the disturbing fact that they always greatly exceeded any profits coming from its supervision. Thirdly, the activity of the Third Council of State of the Kingdom of Poland, prior to the January Uprising period (i.e., before 1863), was characterized by its lively reformist tendency, which could not fail to grasp the issue of water canal transport management. These problems, indicated by the Department of Tax Administration of the Council itself, has always been analysed in respect of the participation of the Kingdom's transport authorities, whose postulates referred to further work on a) making the Augustów Canal more economically efficient, and b) constructing and improving other channels, including the Windawa Canal and the Wisła-Narew Canal. Finally, we acknowledge the critical role played by Stanisław Kierbedź, especially in declining the application for the (re)construction of this watercourse.

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