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"The Deadline has Already been Missed": Wastewater Treatment in Soviet Russia: From Center to Periphery, 1960s–1970s

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"The Deadline has Already been Missed": Wastewater Treatment in Soviet Russia: From Center to Periphery, 1960s–1970s[1]

« Le délai a déjà été dépassé » : le traitement des eaux usées en Russie soviétique, du centre aux régions (années 1960-70)

Laurent Coumel

1 Researchers have produced a substantial body of literature on the history of Soviet environmentalism, including the question of whether it had any positive impact on the ecological situation not only of the nation as a whole, but more particularly of the Russian Republic.[2] Stephen Brain argues in his thought provoking article that concerning water management in the Soviet Union, some "findings do not accord with the standard narrative of Soviet indifference to environmental matters."[3] Among other examples, he draws on the case of the Lithuanian Republic, where water treatment facilities were believed to be at the level of Western European standards, thus helping to reduce riverpollution in the 1970s and 1980s. Simo Laakkonen recently worked with a biologist to synthesize the results of a collective study on this issue for the former Soviet Baltic Republic.[4] Studying what is today one of the most polluted areas in the world, Andy Bruno's book on the Kola Peninsula argues that the main human factor in environmental degradation (taking the example of air pollution resulting from nickel smelters) may have been not the lack of democracy nor the centralized planning system, but the imperative goal of extensive growth correlated to the Cold War and the economic competition between the two superpowers.[5] In addition, recent directions in the environmental history of the former Soviet Union show the fruitfulness of regional analysis.[6]

2 The present article takes up the question of how ecologically effective wastewater management was in the Soviet Union, considering both evidence from central Soviet documentation as well as a case study in the central part of the Russian Republic close

to the Moscow region, the Upper Volga River area. Located between Russia’s two capital cities, Moscow and Leningrad (now Saint Petersburg), this region has been the scene for a long and low-level internal controversy that is worth analyzing (figures 1 and 2). Was there a real shift in policies and their implementation with regard to the improvement of wastewater treatment in the 1960s and 1970s? After a look at the legacies of Stalin’s Russia and at the institutional changes that took place in the early 1960s thanks to the rise of environmentalism in public opinion and government policies, this article will consider the attempts of some officials and experts to implement an “environmental turn” in water treatment issues, as had begun to happen in other fields at that time.[7] Finally, it focuses on the Kalinin (known today as Tver) Oblast, a subdivision that corresponds to a region in the Russian-Soviet administrative context, in this case about the size of Ireland, and in particular on Lake Seliger. This is a unique natural area that in the 1970s, a period when according to Russian mass media and government bodies use conflicts were particularly acute, was transformed into a tourist resort. Lake Seliger provides an ideal case with which to assess the impact of centrally formulated decision-making at the local level.

Figure 1: Map of European Russia with the Volga River

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https://d-maps.com/carte.php?num_car=30399&lang=en

Figure 2: Map of Tver administrative region with the Lake Seliger

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https://d-maps.com/carte.php?num_car=91535&lang=en

The “authorities must put on the agenda the construction of treatment facilities”: Legislative and Institutional Innovation in Post-Stalin Russia’s Water Issues

3 The problem of water quality in industrial cities was not entirely new in the early 1960s. Issued in 1937, the first decree in the USSR designed to improve the quality of discharged water forbade any plant or population center from discharging harmful substances within the sanitary protection zones surrounding water supplies or within the boundaries of populated areas. But, as historian Donald Filtzer points out, there was “a basic flaw in the decree’s logic”: most Russian cities had either no sewage treatment plants, or plants that could cope with only small volumes of waste, while manufacturers were supposed to either discharge their wastes into urban sewerage systems or build their own treatment plants.[8] The result was considerable pollution: “health officials in the RSFSR had become alarmed at the state of Russia’s rivers” by 1940. Up until 1953, the implementation of treatment plants was very slow, and the funds allocated for their construction were extremely low “because industrial commissariats (ministries) considered these projects to be of low priority.”[9] Many polluters preferred to pay a fine instead of building treatment plants.[10] For example, in 1945, “only in Moscow did a majority of the population live in buildings connected to sewers.”[11] Ninety per cent of the industrial and domestic wastes discharged into the Oblast’s rivers and their tributaries went untreated.[12] The first decree concerning

sewage treatment in large urban areas was issued in 1947, but its implementation was far from satisfactory, according to the records of the Russian Republic Ministry of Health. In 1956 (also the first year of Khrushchev's de-Stalinization program), a public debate took place between so-called "communal hygienists" – physicians attached to the two principles of "self-cleansing" and "maximum allowable concentrations of toxins" – and other biologists who criticized such an approach as too optimistic and stressed the need either to radically reduce the amount of waste water or treat it properly.[13] The same year also saw the beginning of strong lobbying in the upper echelons of the Academy of Sciences for the adoption of environmental legislation at the all-union level, but in vain.[14]

4 Rather than presenting an exhaustive study of the situation over the next three decades of Soviet history, the following section addresses two dimensions of the evolution of water treatment issues under Stalin's successors: the changes in central institutions and in legislation in the 1960s.One paradox in particular stands out: as environmental issues became increasingly explicit in the general decrees and laws of the country, the organs in charge of the control of their implementation became weaker.

1960–1961: An Environmental Shift both in the Law and at the Top of the State's Structures…

5 The 1960s opened with the first substantive victory of those opposed to the brutal transformation of nature on Lake Baikal in Siberia, when a Promethean project designed to improve hydro-electric production on the Angara River was abandoned due to the public reaction of scientists, writers, engineers, journalists and regional leaders, along with the state's top officials.[15] Other symbolic steps taken in 1960 and 1961 were significant in promoting the "integrated use and protection" of water, an expression meaning that water resources were not only considered for hydropower and agriculture, but also for other needs. Water was also seen as potentially scarce in some places and/or in the future because of economic growth.[16] A new legislation emerged, making room for environmental views at the republic level.

6 Thus, the Russian Law on the Protection of Nature, adopted in December 1960, required all organizations that had an effect on water bodies to build treatment facilities and prohibited the establishment of new structures creating wastewater without them. However, as political scientist Lada Kochtcheeva points out in her survey of Soviet and Russian environmental legislation, the law "did not specify exact measures, or dates, for the installation of treatment facilities, nor was it clear about the distribution of policy authority or liability upon noncompliance."[17]

7 At the same time, an institutional reorganization provided environmentally-minded experts with a unique opportunity to have more influence. The idea of "water's integrated use and protection" was given priority for a few months with the creation of the Russian Republic State Committee for Water (*Gosvodkhoz*) in 1961. Its initiator was Vassily Zvonkov, a river transportation engineer who had been appointed as the USSR's representative on an international panel reviewing "the integrated management of water resources" for the Economic and Social Council (ECOSOC) of the United Nations from 1956 to 1957.[18] In 1960, Zvonkov published an appeal in the Russian press for the creation of an independent body devoted to water issues, entitled "Let the Voice of

Public Opinion be Heard."[19] It mattered little that this "public opinion" came from the intelligentsia, an elite group of well-educated Soviet citizens inherited from pre-revolutionary Russia.

8 Hydrologist Semen Vendrov was appointed head of the "water protection" administration created to implement the 1960 law. In 1961, he made the following statement at a meeting on regional issues:

> Now the pollution of rivers has reached threatening levels. It began with the river Yauza transformed into a sewer, now it's the case for the Moskva and the Klyazma, and in the future such an honor will come for the Oka, too. The economic authorities must put on the agenda the construction of treatment facilities [for these rivers].[20]

But this appeal was essentially in vain because the productivist forces inside the Soviet government soon regained control of the "water protection" institutions.

… Followed and Jeopardized by a Takeover by Productivist Lobbies

9 In parallel with institutional innovation, a new piece of legislation was passed. In 1963, the USSR Council of Ministers adopted a resolution entitled, "On the Establishment of Penalties for Violating the Rules of the Protection and Use of Water Resources."[21] But in the same year, the *Gosvodkhoz* was subordinated to a union-level committee for the USSR that in 1965 became the Soviet Ministry of Land Reclamation and Water Management (*Minvodkhoz*). Also in that year, an internal controversy arose involving another structure of the Soviet government system: the Hydrological and Meteorological Service run by the Council of Ministers of the USSR (*Gidrometsluzhba*).

10 In March 1965, the *Gidrometsluzhba* chairman asked the Soviet government to reorganize the "survey and protection" of water resources by transferring to it all of the functions and related bodies from other institutions. This created powerful opposition from several ministries and even the RSFSR government itself. The latter defended its track record in this area (the construction of 1,000 wastewater treatment plants on the Volga, Don, Kama, Irtysh, Neva, Moskva and Yenisei River basins in two years) and stressed the importance of maintaining "local" control over the implementation of the plans by enterprises and municipal administrations:

> The proposed transfer of functions on the use and protection of water resources to the Hydrometeorological Service is irrelevant, since it would eliminate the responsibility of the Union republics [...] and would deprive the local bodies of the opportunity to resolve all issues....[22]

11 The argument of a close link with local power and decision-making bodies thus made it possible to disqualify the idea of a centralized control body. In fact, this was tantamount to giving the economic ministries the final say, without external control, in all industrial establishment projects. Thus, the same administrations were in charge of both exploitation and protection of water resources. This conflict of interest became permanent and lasted until the end of the Soviet period. On December 10, 1970, a national law, the Principles of Water Legislation (PWL), according to Lada Kochtcheeva, "established a general list of water policy requirements and prohibitions, but left the details to the USSR Council of Ministers, individual republics, and local agencies".[23] As for control over wastewater management, it remained fragmented across a wide variety of institutions that complemented and, at the same time, overlapped with each

other, to the great displeasure of those in charge of the *Minvodkhoz* branch responsible for it: the Basin Inspection Administration.

"Water needs to have one single owner": Institutional Proliferation and its Critics on the Eve of the 1970s

12 A look at the reactions of the Basin Inspection Administration in the years preceding the new 1970 declarative step allows for an evaluation of the contrast between juridical texts and field realities, while regular attempts to reshape the hierarchy of institutions in the execution of water purification programs reappeared in the very early 1970s.

The 1968 Protest of some Territorial Inspectors

13 Significantly, those in charge of the *Minvodkhoz* departments responsible for water protection deplored their marginal status, lack of resources, and difficulties in gaining respect at the local level. Mark Yakovlev, head of the Territorial Inspectorate of the Moskva and Oka River Basin, which included, among others, the Kalinin and Moscow regions, condemned his administration's lack of financial resources during an internal assembly in June 1968 in the capital:

> In foreign countries, plans are specifically approved for 2–3 years for water management measures. Unfortunately, we do not have this. In addition, too much time has been lost, so now we need to pay attention to a number of the most important objects [factories].[24]

According to Yakovlev, the inspectorate's attachment to the *Minvodkhoz* prevented it from carrying out its tasks "to the end," hence the need to "restructure (*perestroit'*)" the whole, preferably with "an autonomous state body, which would deal only with the protection of water resources."[25] This idea that Republic water departments should all be subject to the same external injunctions as the others twice drew applause from the assembly. Yet it did not appear in any other official document or press article at the time because of its controversial nature. As Yakovlev himself recognized,it would be twenty years before a state committee dedicated to environmental issues was created[26].

14 Kira Rostislavina, a WWII veteran and head of the northwest water inspectorate, raised the need for institutional change just three weeks after the creation of the *Minvodkhoz*:

> We must follow the path of strengthening the middle link, rather than strengthening the central apparatus.... And then it seems to me necessary to have a special body independent of anyone in the center, with which the head of the basin inspectorate could quickly make contact.[27]

To justify her request, she gave an example that illustrates the degree to which existing laws were enforced:

> Once, when there was an attempt to authorize a factory without treatment facilities, I rang Moscow again and again. I spent half a day ringing and was forced to send a telegram to Comrade Kosygin [Prime Minister of the USSR, 1965–1980]. I don't think I was wrong because an appropriate commission was created. But this is not a system, it is only possible as an extreme measure. And there are lots of situations like this.[28]

Other voices in the ministry apparatus confirm the powerlessness of authorities in the field to assert control.

The Impossible but Desirable Reform of Minvodkhoz: A New Episode, 1970–71

15 The recurrent proposals for the creation of a new independent organ for water protection had an echo in the upper echelons of the Soviet state. The following two examples show the existence of internal opposition to the *Minvodkhoz*.

16 In August 1970, the commission of the USSR Council of Ministers that was in charge of a new decree on environmental protection and chaired by the head of the Soviet Gosplan, a body of ministerial rank responsible for economic planning in the whole country, once again recommended removing the responsibility for water management and protection from the *Minvodkhoz*. This left it with only water reclamation (*melioratsia* in Russian, which includes both the irrigation and drainage of land for agricultural purposes), with the support of the Academy of Sciences of the USSR (henceforth abbreviated as AS). But, allied to the Ministry of Agriculture and with the blessing of other productivist bodies, the *Minvodkhoz* managed to keep its function of the "state supervision of the rational use and protection of water resources".[29] Thus, it retained control over the task of monitoring the implementation of concrete measures in water treatment.

17 A few months later, in May 1971, a new recommendation for reorganization came from Abram L'vovich, an engineer, former senior official of the *Minvodkhoz,* specialist in industrial and domestic water treatment, and most likely the brother of hydrologist Mark L'vovich (1906–1998), who had served as head of the hydrology department of the Institute of Geography of the AS since 1960. His international career – as a top specialist in the field, he became president of the Surface Water Commission of the World Hydrological Association – and his stature as an official Soviet hydrologist may have prevented Mark L'vovich from co-signing the detailed, 31-page document entitled "Protection of Waters Against Pollution", of which he was most probably the co-author.[30]

18 The letter accompanying this project, addressed to the deputy head of the Soviet government, took an opposing view to the ministerial position. It asserted as a principle that in order to remedy the influence of "narrowly sectoral interests (*vedomstvennye*)," an expression that referred to the economic ministries at the time, including the *Minvodkhoz* itself, "water must have a single owner" that was responsible for both its use and its protection but was outside the economic sphere.[31] The aim of the project was to enable the realization of a "unified technical policy in the integrated use (*kompleksnoe*) of water resources, including their protection." The proposed program included the restoration of research institutes' autonomy from any "sectoral approach," and the strengthening of the powers and competencies of the unified body responsible for coordinating research work and applying the new principles, which can be summarized as "reducing wastewater and its pollution level as much as possible, as well as discharges into watercourses, including treated wastewater". It also raised the issue of increased involvement in technical and economic decisions by means of "Councils" (in Russian, "Soviets"), made up of representatives from sanitary bodies, and from the fishing and territorial communities concerned. This project aimed to simplify the chain of command from the initial order to construct a wastewater treatment facility to its implementation. It was not taken into account, or even commented on, by the government working group in charge of preparing the 1972

decree. Instead, the latter entrusted the State Committee on Hydrometeorology and the Environment (*Goskomgidromet*, the successor of *Gidrometsluzhba*) with new prerogatives. These were confirmed in yet another decree in 1978, but without putting an end to the sharing of responsibilities between ministries (Health, Water and Agriculture, and also Fisheries), which favored the inertia of the polluting ministries, because of, as Kochtcheeva points out, the "dispersion of authority among multiple agencies."[32] In these conditions of "institutional proliferation," what were the regional echoes of the implementation of water treatment policies?[33]

"The deadline has already been missed": Worries and Failures at the Regional and Local Levels

Alarm Bells in the Regions: A Case Study in Pravda's Records

19 Beginning in the late 1960s, warning signs starting arriving from anglers and local residents who denounced cases of the mass deaths of fish in rivers. Many focused on the lack of responsibility taken by the major polluters, , ironically calling them "poachers" because at the time the focus of official nature protection discourse in the media concerned the fight against poaching. This involved especially student brigades, which had the right to arrest hunters and anglers as well as New Year's Eve tree-cutters.[34] In addition, the widely read organ of the Communist Party's Central Committee, *Pravda,* sent a digest of letters in 1970 to the Council of Ministers that had been written by citizens from all around the country, reporting cases of water pollution in rivers and lakes and concluding: "As a result, the fish are dying, the water supply of cities and villages is getting worse, and a number of places for workers' recreation and leisure are being damaged."[35]

20 *Pravda* investigated the situation by sending requests to the regional authorities (*oblispolkomy*). "The first replies received show that the inspections are being carried out without due rigor....] Such inspections are unlikely to remedy the situation," concluded its report, thus criticizing the control exercised by the oblast administrations as insufficient.[36]

21 The regional authorities were not the only ones to blame for the lack of an official reaction to the non-enforcement of the legislative order. A rare document addressed to the Party's Central Committee in December 1974 shows that the political elite paid very little attention to the issue of water treatment. As in the 1968 case of Rostislavina, this document illustrates an uncommon short-circuiting of the usual hierarchical chain, since Mark Yakovlev, the *Minvodkhoz* director of inspection who had already made his presence felt in June 1968, addressed himself directly to the Agricultural Department of the CC of the CPSU, the highest organ in charge of these issues in the Party-State system. It was responsible for preparing the decisions of the Politburo that were binding on the Soviet and republic governments.[37] Yakavlev's letter warned of "unresolved issues of importance to our state," dramatic wording that was no doubt chosen to justify an exceptional step. The letter pointed out that neither Kalinin nor Konakovo, an important industrial city on the Volga River upstream of the Ivan'kovo dam northwest of Moscow (from which part of the capital's drinking water comes), had been equipped with sewage treatment plants. Despite existing regulations, the Russian Republic authorities had not yet planned for the creation of treatment facilities. The

response of the deputy prime minister himself, when asked by the CPSU CC apparatus, was reassuring: there was no reason to be alarmed, since the delays were normal, given that a "plan for the integrated use and protection of the water and land resources of the Oka River Basin" was being developed.[38] The Agricultural Department seconded this opinion, concluding that there would be no problem with delaying the project for a few more years.[39]

22 Such inertia relativizes the significance of the exemplary legislation that existed in the USSR at the time, even in the central zone and the capital region of the country. It is significant that there is no mention of the expertise of *Goskomgidromet* or the Ministry of Health, nor of the courts that, in principle, were competent here. In other words, once a "plan" of wastewater treatment had been decided upon by the central authority, the question of its application seemed to be secondary for the country's leadership.

At the Regional (Oblast) Level: A Litany of Dysfunction

23 The regional archive in Tver contains a number of documents that are crucial for assessing the effectiveness of the measures taken to improve wastewater treatment in the 1970s in this region. They originate from the Moskva and Oka River Basin Inspectorate (now called the "directorate"), an administration dependent on the *Minvodkhoz*, whose vision differed considerably from that of its supervisory ministry, as well as from other government and party bodies. Its main objective was to ensure the construction and proper operation of the treatment plants provided for in the local wastewater treatment programs – not an easy task.

24 According to an internal report of the Kalinin Oblast administration in 1975, from 1964 to 1974, 128 (89%) of the 143 planned facilities had been built.[40] But the next year, the *Minvodkhoz* regional directorate evaluated the state of water treatment as "unsatisfactory." Its deputy head, P. Razdorskikh, went so far as to note that "the majority of cities and settlements do not have a facility for domestic and industrial waste water, and this is also the case for all livestock farms. In addition, the water from polluted water courses is used for domestic consumption."[41] In January 1980, in a letter to the regional authorities, Razdorskih warned of the insufficient progression of the works in water protection facilities. He stated that in Rzhev and Selizharovo, industrial enterprises had made no contribution to construction financing, creating a serious obstacle to their completion:. "The deadline of delivery of treatment plants in Kalinin, Ostashkov, Rzhev, Staritsa and Selizharovo [...] has actually already been missed." [42] The reason for this failure was the lack of proper funding in the forecasted budget of his administration. In other terms, the problem was not the lack of material or of workforce, but the lack of implementation of the regional authorities' decrees by their own administration. Once again, the issue of wastewater treatment proved to be secondary for the Soviet Party-State. When the Kalinin treatment plant was finally activated in 1972, a special report about it was broadcast in an issue of the series "Our Territory," a newsreel program shown in Soviet movie theaters.[43]

25 There was a long list of facilities that had still not been built, were defective, or were not yet fully functioning, according to another report written by Razdorskikh in July 1980. Out of a total of 126 wastewater treatment facilities, fifty in Moscow's drinking water supply zone were not working correctly because of load obsolescence or poor exploitation.[44] Still, such a problematic situation was not brought to the attention of

the public. There was no echo of this report or questions asked in the press, except for occasional, rarely published letters from readers, and no mention was made in the records of the regional authorities of any regional or local level meetings concerning the issue of water quality.

26 A focus on a local case study, in the so-called Upper Volga region, a rural area known for its rich natural water resources, further illustrates the lack of governance already pointed out at the regional scale. Given its importance to the water supply of key Soviet cities (it lies some 300 kilometers from both Moscow and Saint Petersburg), one would expect to find an exemplary water treatment policy in this specific area. But even here, close to the centers of power, the implementation of environmental policies was largely deficient.

"Lake Seliger Continues to be Polluted": A Slow Local Disaster

27 One of the above-mentioned facilities deserves particular attention: the sewage treatment plant for the Ostashkov tannery on the shores of Lake Seliger. In 1960, a member of the Moscow branch of the All-Russian Society for Nature Protection (VOOP) called upon his colleagues to publically react to the degraded situation surrounding Lake Seliger, located near the source of the Volga, what he called "a pearl of Russian nature." [45] Water quality in the lake had fallen victim to a tannery that had no water treatment facility at all. In November 1961, an article published in the newspaper of the Soviet Union of Writers (since the mid- 1950s a major resonance chamber for environmental controversies in the USSR), signed by a local expert, the director of the regional branch of the RSFSR Ministry of Fisheries' State Research Institute of Lake and River Fisheries (*GosNIORKh*) established in 1958 in Ostashkov, described in harsh terms the consequences of the leather factory's archaic wastewater treatment plant:

> The current purification plant is able to pass only half of all factory and city waste water through the filters, and this plant breaks down 5–6 times a year. Then, all 12,000 cubic meters of dirt are discharged into the lake every day.[46]

28 In May 1962, the VOOP activist managed to publish another article in *Pravda*, but the text didn't mention the issue of water treatment and, instead, focused on the state of the forests around the lake.[47]

29 A special republic-level decree on the development of tourism in the region was issued in December 1962, and the factory was supposed to receive funding from the Ministry of Light Industry for the construction of a new sewage treatment facility. Another regional decree in 1967 repeated the objective because the central ministry had not yet allocated the funds for its construction. In 1964, the case was mentioned in David Armand's seminal work *For Us and For Our Grandchildren*, the first popular science book dedicated to ecological issues in Soviet history.[48] The context of the Lake Baikal controversy created a favorable climate for environmental issues, even if the half-victory of the authorities (with the construction of the cellulose factory finally commissioned in 1966) indicated that ecological criticism of the great productivist projects went unheard, including the pharaonic plan to divert the course of the rivers of Siberia and Northern Russia, piloted precisely by the Minvodkhoz.[49]

30 In May 1971, a new Russian Republic decree stated that the Ministry of Light Industry was responsible for the delay in construction that had been foreseen in yet another 1967 decree.[50] In 1973, the Council of Ministers explained that about 10 percent of the

Ostashkov tannery sewage was discharged without any treatment, and the rest only received mechanical rather than biological treatment since the upgraded treatment plant had been on hold since 1962.[51] The new plant was designed to take in 25,000 cubic meters of water per day, about one tenth of the capacity of the existing sewage treatment plant for the regional capital Kalinin at that time, and was supposed to replace the existing mechanical treatment plant which had a capacity of just 17,000 cubic meters of water per day).[52] The issue was raised in the central press. In March 1973, *Pravda* published an article deploring that the treatment facility in Ostashkov "had not been built until now, although it had been planned a long time ago."[53]

31 In 1978, deputy head of the Moskva-Oka directorate Razdorskikh made an alarming statement: the new treatment facilities, both internal and external, were not under construction at all. On the contrary: "Lake Seliger continues to be polluted by sewage, which has a negative impact on the sanitary conditions of the watershed, as testified by analyses collected at the exit of the biological treatment system."[54] This is illustrated in the following table.

Table 1. Pollutents in the Lake Seliger in 1978[55]

	BOD (biological oxygen demand)	Petroleum products	Suspended solids	Chrome	Detergents	Fats
Admitted norms	6	0.5	15	0.1–0.6	0.25	3–5
Results	8.6	-	47	0.6	0.4	120

32 Razdorskikh had even issued an order to shut down certain parts of the factory in 1977, but this seems not to have been executed as no evidence of a judiciary decision could be found in the regional archive. As a way of completing the plan for the construction of improved sewage treatment facilities, the authorities also decided to use the factory's facilities for the city's domestic water.

33 In August 1986, a new series of correspondence on water treatment appeared in the records of the Russian Council of Ministers. This time, a local alarm had provoked a quick reaction from the ministries involved. Yury Grishin, a retired school director, Ostashkov native, and local erudite, wrote a letter about the lake's pollution due to the lack of a treatment facility. In its response, the *Minvodkhoz* recognized that the 1978 decree had not yet been fulfilled. Only one third of the budget had been received and the facility was unable to work properly. This contradicted the regional administration, which had claimed that the plant would be put into service in the coming October.[56] As a result, the facility did not commence operations until the end of the decade, just as the USSR began to collapse.

Conclusion: An Example of the Failure of Soviet-style Water Protection at the Local and Regional Levels

34 Archival research at both central and regional levels shows a paradoxical reality: a firm legislation contrasted with an extremely hazardous implementation. As an

international team of hydrologists put it in an article published in the *Canadian Journal of Fisheries and Aquatic Sciences* in 2000: "The Russian water quality monitoring system during the Soviet era was one of the most extensive in the world".[57] But, in the same article, the authors argue that "apart from chronic underfunding, the main problems that need to be addressed [to assess this system] are poor functioning of the system." In other words, while on paper the Soviet Union had an impressive system of water monitoring, in practice the results were far removed from the objectives. This statement fits perfectly with the water treatment situation in the Upper Volga region, despite its role in the Soviet capital's water supply: the sewage was not adequately purified enough by the existing facilities. Some of these had been planned in the early 1960s, such as the treatment facility in Ostashkov, which had been the focus of government attention with the 1962 decree, but had still not been built by the late 1980s. This case study confirms a strong disconnect between the planning administration and political announcements. The main shift to improve this problem came after 1988 with the reorganization of the main environmental institutions, but despite this the issue of constructing a sufficient treatment plant for one of Russia's pearls – Lake Seliger – was not solved until the early 1990s when industrial activity dropped dramatically.

35 For Donald Filtzer, "the Soviet Union differed from the West European experience not so much in the actual state of its cities, but in the time lag with which it eventually implemented comprehensive sanitary reform."[58] According to official statistics verified by academic experts from Norway, France and United Kingdom, gathered in a time of fruitful international cooperation, only one third of the total volume of industrial and domestic water had been properly treated in Russia by the end of the 1980s.[59] There was no catastrophic disaster here, and due to the volume of water concerned levels of pollution were not dramatic compared to some Western European areas. But, as the present article has demonstrated, the official goal of "water protection" was not pursued at Lake Seliger. Specifically, Soviet planning failed to address the ecological challenges as perceived by the actors responsible for solving them at that time, as Philip Pryde determined in his general assertion of Soviet environmental policies.[60] The state-run economy did not protect the ecosystems of the rivers affected by the industrial discharges or the people who lived nearby, despite Soviet-level legislation that was equal to these challenges on paper. Further work on environmental health in the Soviet era is needed to assert the impact on the human populations concerned. A study carried out in the post-Soviet period for the Republic of Karelia, in the north of European Russia, shows that this damage is not negligible.[61]

NOTES

1. All quotations used in titles are derived from the same source: State Archive of the Tver Region (GATO), 2043/14/3315/115.

2. For the Russian Republic, see Douglas Weiner, *A Little Corner of Freedom: Russian Nature Protection from Stalin to Gorbachev* (Berkeley: University of California Press, 1999); Paul Josephson et al., *An Environmental History of Russia* (Cambridge: Cambridge University Press, 2013); Laurent Coumel and Marc Elie, “A Belated and Tragic Ecological Revolution: Nature, Disasters, and Green Activists in the Soviet Union and the Post-Soviet States, 1960s-2010s”, *Soviet and Post-Soviet Review* 40, n° 2 (2013): 157–65; Elena Kochetkova, Kochetkova E. Baikal Waters: Industrial Development and Institutional Debates, 1950s–1970s, in *Place and Nature: Essays in Russian Environmental History*, eds.: Davis Moon, Nicholas Breyfogle, Alexandra Bekasova (Winwick: White Horse Press, 2021), 292–312.

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ABSTRACTS

Abstract: Based on a multiscale survey, this article examines the discourses and practices of wastewater treatment in Soviet Russia between the establishment of a new legislative and institutional framework in 1960 and the middle of the 1980s. While simply placing the question of wastewater treatment on the agenda during this period does present a contrast with the Stalinist era, the institutional proliferation of the 1960s and 1970s constituted an obstacle to improving the ecological health of rivers in certain regions. This is clearly illustrated by the situation in the city of Kalinin (known today as Tver) north-west of Moscow, and in particular the city of Ostashkov, on Lake Seliger. Despite the many alarms raised at the central, regional, and local levels, while well publicized the measures taken did not represent an ecological turn, despite the increase in environmental concerns at the time.

Résumé : Cet article examine, à partir d'une enquête multiscalaire, les discours et les pratiques de traitement des eaux usées en Russie soviétique entre 1960, date de la mise en place d'un nouveau cadre législatif et institutionnel dans ce domaine, et le milieu des années 1980. Alors que la mise à l'agenda de cette question durant cette période tranche avec l'ère stalinienne, la prolifération institutionnelle des années 1960 et 1970 a constitué un obstacle à l'amélioration de l'état écologique des cours d'eau dans certaines régions, comme le montre l'exemple de celle de

Kalinine (aujourd’hui : Tver) au nord-ouest de Moscou, et en particulier de la ville d’Ostachkov, sur le lac Seliger. Les mesures prises, au-delà des effets d’annonces, malgré les nombreuses alarmes tirées aux niveaux central, régional et local, sont loin de caractériser un tournant écologique réel, malgré la montée des préoccupations environnementales durant cette période.

INDEX

Mots-clés: Histoire environnementale, histoire urbaine, communisme, industrie, traitement des eaux usées
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