CLOSING ENVIRONMENTALLY HAZARDOUS FACILITY:
THE WASHING AND STEAMING STATION OF
THE ODESSA RAILWAY TOWARDS ENSURING THE
RIGHT TO SAFE AND HEALTHY ENVIRONMENT OF
RESIDENTS OF THE DISTRICT “LUZANIVSKY” OF
THE CITY OF ODESSA, UKRAINE

S.V. Kivalov
T.E. Kharitonova
S.F. Slesarenok
V.O. Yureskul

Everyone has the right to an environment that is safe for life and health, and to compensation for damages inflicted through the violation of this right.

*Article 50 of the Constitution of Ukraine*

The territory of the Luzanivsky microdistrict of the city of Odessa is a powerful recreational area located between the beautiful sandy beaches of the Northern Black Sea and the Kuyalnik Estuary,

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1 People’s Deputy of Ukraine, President of the National University “Odessa Law Academy”, Academician of the National Academy of Legal Sciences of Ukraine, Doctor of Law, Professor, Honored Lawyer of Ukraine.

2 Doctor of Law, Associate Professor, head of the Department of Agrarian, Land and Environmental Law of the National University “Odessa Law Academy”.

3 Ecologist, economist, expert on sustainable development and adaptation to global climate change, chairman of the Public Self-Government Committee of the Luzanivsky district in 1996-2012, director of the NGOs MAMA-86-Odessa and the Black Sea Women’s Club.

4 Ph.D. in Law, Associate Professor, associate professor of the Department of Agrarian, Land and Environmental Law of the National University “Odessa Law Academy”, member of the NGO “MAMA-86-Odessa”.

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with its curative mud and mineral springs. According to the Ukrainian legislation, such territories are subject to special protection: economic and other activities that negatively affect the environment or may interfere with their use for the targeted purpose are prohibited, as well as changes in the natural landscape and other actions that contradict the use of these zones for their intended purpose.

The Luzanivsky microdistrict located in the northern part of the city of Odessa on the territory of the Hadzhibey-Kuyalnik sandbar within the 3 km sanitary protection zones of two resorts (the seaside climatic resort “Luzanivka” and the balneological resort “Kuyalnik”) occupies an area of 13.5 ha (the residential area – 8.3 ha). The population of the microdistrict is about 10,600 people, including 2000 children. The microdistrict planning organization is a rectangle about 1800 m long stretching along the motorway and a about 350 m wide. The residential area is represented by multi-storey buildings (with 2, 3, 5 and 9 floors). Residential houses were on the balance of various agencies, enterprises and organizations. In particular, 10 houses belonged to the “ZOR” plant, 3 – to the “Chervona Gvardiya” plant, 19 houses – to the railways, 1 house – to the mechanical and the rubber plants, and JSC “Pochvomash”.

The Luzanivsky microdistrict was developed in 1955-1958 by standard design approved by the State Construction Committee of the USSR and the Ministry of Health of the USSR. Sanitary and hygienic examination of housing projects by the State Sanitary and Epidemiological Service was not foreseen. Among the features of the Luzanivsky microdistrict territory which had to be taken into account are a high level of groundwater standing, the lack of storm drainage and dewatering, which contributed to the formation of wetlands. At the same time, the state worsened due to the discrepancy between the capacity of sewage facilities and the requirements of the service area. The drainage was carried out by the SPS-10, which was built in 1967 and operated with constant overloads. With a maximum capacity of 100 thousand cubic metres, the amount of actual run-off reached 120 thousand cubic metres per day, as a result of which the district was periodically flooded with wastewater. At emergency stops of SPS-10, the recreation zone “Luzanivka”, territories of industrial enterprises and children’s establishments were also flooded.

In 1936, the washing and steaming station of the Odessa railway (hereinafter – WSS) began to operate at the Luzanivsky district to wash tanks from oil, petroleum (area of 5.25 ha) with set- sinq of 4.5 ha). According to the industrial enterprises SN 2 sanitary classification, for at a size of 50 m. Thus, the microdistrict were in close of environmentally hazardous.

The WSS was built in the requirements and without the absence of cleaning, the lack of wastewater treatment in the WSS, railway tanks were used to chemicals with the use of 44,576 tanks were treated. Gross emissions amounted to causing cancer, 1 t/year; from washing air purification systems – about 12 t/year, carbon sulfur dioxide amounted to about 12 t/year, carbon.

Systematic instrument oil hydrocarbons recorded concentration (hereinafter – residential area. Judging by the high level of hydrocarbon ponds. Instant release of oil during 20-30 minutes of their concentration depended (oil, gasoline, kerosene, systematic studies of the levels of houses (Nos. 42, 44 in 1st Nos. 67, 71, 100 on Luzanivsky St. No. 311 in Mykolaiivska Rostovskaya, underflooding with sewage, 12-fold MPC excess for 0.008 m3), sulfur dioxide (MPC (MPC ppm = 0.008 mg}
wash tanks from oil, petroleum products and other substances (total area of 5.25 ha) with settling ponds and evaporation ponds (the area of 4.5 ha). According to the sanitary standards for the design of industrial enterprises SN 245-71, the WSS is classified under class 5 of sanitary classification, for which the sanitary protection zone is set at a size of 50 m. Thus, the residential buildings of the Luzanivsky microdistrict were in close proximity to the sanitary protection zone of environmentally hazardous enterprise.

The WSS was built without taking into account environmental requirements and without sufficient technological solutions, namely: in the absence of cleaning gases formed during the treatment of tanks, lack of wastewater treatment, conditions for their reception, etc. At the WSS, railway tanks were washed from oil products and other toxic chemicals with the use of imperfect technology. For example, in 1998, 44,576 tanks were treated, in the first nine months of 1999 – 29,814 tanks. Gross emissions of harmful pollutants – oil hydrocarbons, capable of causing cancer, from the WSS settling ponds were about 40 t/year; from washing and steaming tanks, including washing water purification systems, – about 20 t/year. A huge contribution to the air pollution was made by the WSS boiler-house: gross emissions of sulfur dioxide amounted to about 105 t/year, nitrogen dioxide – about 12 t/year, carbon monoxide – 30 t/year.

Systematic instrumental measurements of the concentration of oil hydrocarbons recorded them at 1.0–3.8 maximum permissible concentration (hereinafter – MPC) level in the atmospheric air of the residential area. Judging by the results of the research, it was stated that a high level of hydrocarbons in this district was created mainly by settling ponds. Instant release of hydrocarbons (10–100 MPCs) that occurred during 20–30 minutes of tank steaming complicated the situation, and their concentration depended on the nature of the residual product (oil, gasoline, kerosene, fuel oil, diesel fuel, oils, etc.). As shown by systematic studies of the level of atmospheric air pollution in residential houses (Nos. 42, 44 in 1st Sortuvalna, Nos. 5, 7, 9 in Chervona Street, Nos. 67, 71, 100 on Luzanivska Street No. 299, 301, 301/2, 305, 307, 311 in Mykolaiivska Road) located in the zone of WSS influence and underflooding with sewage wastes, there were more than 40, 10 and 12-fold MPC excess for saturated hydrocarbons (MPC ppm = 1 mg/m3), sulfur dioxide (MPC ppm = 0.5 mg/m3) and hydrogen sulfide (MPC ppm = 0.008 mg/m3) respectively.
In wastewater samples, there were observed exceeded MPCs for hydrogen sulfide, petroleum products, phenol; the concentration of oil products in the coastal surface layer in the settling ponds was high and varied within the limits of 15-120 mg / l, in the evaporator ponds – up to 20 mg / l; in the coastal zone of the estuary lakes and the Kuyalnik Estuary – 8-10 mg / l (26-33 MPC) in seawater samples collected in the coastal zone of the Luzanivka beach, there were repeatedly recorded exceedances of the standards for the content of petroleum products (25-40 MPC), phenols 4-25 MPC; in the samples of tap water, there were rather high concentrations of iron (at the MPC limit), exceeding sanitary and hygienic standards for chloride content to 2.6 MPC, phenol at concentrations of 0.0052 mg / l (should be absent) were detected.

In addition, the concentrations of hydrogen sulphide were repeatedly exceeded more than 35-60 times in the basements of the houses. Moreover, according to observations in the autumn-winter period, the concentration of toxicants was 1.5-2.0 times higher, due to the proximity of emission sources, climatic seasonal features of the district and poor ventilation of premises during the cold season. Residents of low-rise houses built in 1960 found themselves in particularly difficult situation. In these houses, without concrete floors of the basement, there was water under the board floor. Dwellings on low floors were damp, the walls were covered with fungus. Due to the insufficient power of the SPS-10 and the unsatisfactory condition of the sewerage networks, there were periodic releases of rotting and fermentation products through toilet bowls and washbasins into apartments, so that the inhabitants were almost constantly affected by the sewage evaporation and, due to the neighborhood of the WSS, the toxic substances released during the washing and steaming of tanks.

It is worth noting that the development of the Luzanivsky microdistrict was further considered erroneous, because when designing and laying it, mistakes related to the violation of urban planning regulations were made. Besides, possible consequences of the impact on the residents of the microdistrict of the already existing WSS and transport highways: from the south – Odessa-Kotovsky residential area-Mykolaiv motor road, from the north – the Odessa-Sortuvalna railway station – were not taken into account. Environmental risks related to adjacent industrial facilities and transport routes were not sufficiently considered either. Urban planning regulations were violated: the residential area was located behind the motor road to the leeward side of the WSS. As a result of residential development, there is no landscaping from the motor road to the residential area.

So, the WSS, transport, and housing development are officially recognized as sources of pollution to the Luzanivsky microdistrict, especially from the point of view of the Luzanivsky microdistrict. The problem of pollution is shown in the complex ecological state of the Luzanivsky microdistrict.

It should be noted that the social and economic development of the Luzanivsky microdistrict has not improved significantly. In particular, the activities of the Odessa Railway are not effective. In May 1995, protests in the Odessa region against the construction of an industrial zone near the Luzanivsky microdistrict were not dealt with effectively. The decision of 1995 was not agreed with the Ministry of Environmental Safety in the Odessa region.

Similar comments on the construction and transfer of the boiler house to the Luzanivsky microdistrict were taken to do this, since the fuel oil emulsion from the surfactant tank to the commercial operations of the boiler-house chimney, the dispersion, led only to a partial scattering.

Meanwhile, the authorities left much to be desired – gas poisoning...
olated: the residential and the recreational zones are located on the leeward side of the WSS; there is no landscaping; the distance from residential development to access roads is less than 100 m; the distance from the motor road to the residential area is less than 100 m and there is no landscaping.

So, the WSS, transport routes, sewer networks and parking were officially recognized as the main sources of environmental pollution in the Luzanivsky microdistrict. Numerous letters and complaints of the microdistrict residents about the high level of environmental pollution, gas poisoning, flooding of houses, poor condition of sewer systems were confirmed by acts and protocols and implied the complex ecological, epidemiological and social situation in the Luzanivsky microdistrict.

It should be noted that the ecological situation in the Luzanivsky microdistrict has not been left without attention of environmental services. In particular, in April 1994 the State Department for Environmental Safety in the Odessa Region of the Ministry of Environmental Protection and Nuclear Safety of Ukraine requested the Odessa Railway administration to construct treatment facilities at the WSS. They were built, however, unfortunately, their work was ineffective. In May 1994, the State Department for Ecological Safety in the Odessa region made an order to the Odessa railway administration to liquidate the settling ponds and recultivate the land after the settling tanks were liquidated. However, the rehabilitation project of 1995 was not agreed by the State Department for Environmental Safety in the Odessa region because of significant comments.

Similar comments to the WSS (liquidation of settling ponds, transfer of the boiler house to gas) were made by the Ecology Department of the Odessa City Council. However, almost no measures were taken to do this, since the extraction of 19,000 tons of water-oil emulsion from the surface of sedimentation lakes could be attributed to the commercial operations, as the increase in the height of the WSS boiler-house chimney, as shown by the results of the calculation of the dispersion, led only to the spread of emissions for a larger distance and a partial scattering of them.

Meanwhile, the effectiveness of the measures applied by the authorities left much to be desired. On March 20, 1996, in the Luzanivsky microdistrict of the Suvorovsky district of Odessa, a tragedy occurred — gas poisoning of nine people, five of whom could not be
saved. In death certificates, the cause of death was “Carbon monoxide poisoning”. In addition, the residents complained about deteriorating health conditions, the impossibility of living in these conditions. In particular, they complained of attacks of suffocation, eye pain, tearing, nosebleeding, severe headache, heart pain, weakness, metallic taste in the mouth, vomiting, sleep disorders. The emergence of this kind of extreme situations, as a rule, occurred at night, when the majority of the residents stayed at home and were simultaneously exposed to toxic effects. Unfortunately, even simultaneous death of five people did not lead to effective measures to ensure the rights of citizens to a safe and healthy environment. There were no perpetrators identified, and no one was brought to legal responsibility.

However, the tragedy that occurred caused a social explosion in the microdistrict that resulted in mass protest actions. People realized that if they wanted real changes, they must self-organize to improve the environmental situation in the neighborhood. The public self-government Committee of the Luzanivsky microdistrict, which was created back in 1989 as a self-organizing body of the microdistrict’s community, included a number of people ready to actively defend their citizens’ rights. In less than a month, a citizens’ assembly was organized and held, which gathered more than half of the population of the tenth thousandth microdistrict. The then mayor of Odessa, E.J. Gurvitz visited the gathering of citizens and the next day issued a directive on measures to improve the critical situation in the Luzanivsky microdistrict. Then, at the expense of the city budget, all 56 multi-storey houses of the microdistrict were renovated. These measures somewhat reduced social tension, but did not solve the main environmental problems of the microdistrict.

The examination of the chemical composition of ground water and soil under the residential buildings at 5 Chervona Str., apt. 5 and 9 Chervona Str., aps. 25 and 27 conducted by experts of the Physico-Chemical Institute of the National Academy of Sciences of Ukraine on May 27, 1996, revealed exceede levels of formaldehyde, hydrogen sulfide, oil products and heavy metals.

In 1997, Luzanivka’s active mothers, concerned about the influence of negative environmental factors in the place of residence on the health of their children, created the NGO “MAMA-86-Odesa”. Women activists joined in human rights activities. With the active support of Kiev public organizations, activists of the public

self-government Committee “MAMA-86-Odesa” picketed the Ministry of Public Health and the Ministry of Industry. On May 30, 1997, the Kiev Regional Administration demanded that the microdistrict be transformed into a health reserve. This decision was made in order to ensure the residents' right to life and health, as well as to prevent further deterioration of the environment.

Following this directive, a meeting of the representatives of the Ministries of Public Health, Industry, and Environment was held, at which it was decided to create a special health reserve in the microdistrict. This decision was made in order to ensure the residents' right to life and health, as well as to prevent further deterioration of the environment.

However, again with the exception of the Odessa Regional Administration’s decision, the population did not have an understanding of the situation. The population did not understand the meaning of the designation “health reserve” and did not agree to the establishment of such a zone. As a result, the population was not aware of the possible negative effect on the envir
self-government Committee of the microdistrict and the NGO “MAMA-86-Odessa” picketed the Verkhovna Rada and the Cabinet of Ministers of Ukraine in early June 1997. As a reaction to the demands of the picketers, a special order of the Cabinet of Ministers was issued to solve the problems of Luzanivka.

Following this directive from the Cabinet of Ministers of Ukraine of 18.06.1997, the Commission, with the participation of representatives of the Ministry for Emergency Situations, Regional State Administration, Environmental Security Administration and other competent organizations, as well as the environmental community, conducted on 03.07.1997 a comprehensive check of the ecological situation in the housing estate “Luzanivsky”, the settlement of Kotovsky and the northern part of Peresyp. It concluded that the existing sewer system failed to ensure the removal of economic and storm sewage, which lead to flooding of the territory of the surveyed area. This leads to a sharp increase in gastrointestinal infectious diseases, as well as to gas poisoning of residents. Water pollution reaches the water area of the Black Sea and the sanitary protection zone of the Kuyalnik Estuary. The Commission pointed out that the construction of a sewage pumping station and a discharge header started in 1993 had been suspended because of the lack of funding. The Commission’s conclusions suggested recognizing the territory of the Luzanivsky district as an environmental disaster zone, which in the absence of a sewer system could lead to the pollution of the Black Sea, the Kuyalnik Estuary, and mass diseases of people.

However, again while the authorities were discussing the adoption of possible response measures, on 17.06.1997, 05.09.1997 and 06.09.1997 new cases of mass poisoning of the population with gases of unknown origin were registered.

As a result of repeated trips to the site of employees of the State Administration of Environmental Safety in the Odessa region and analysis of samples taken during these trips, eventually there was an understanding of the causes of the environmental crisis in the Luzanivsky microdistrict. In particular, it was found that the volatile organic substances, which appeared in the air due to evaporation from the surface of nearby water bodies contaminated with waste from the washing and steaming station of the Odessa railway, had a negative effect on the environment.
The procrastination of the authorities in an effective response led to the activity of the citizens, aimed at protecting their constitutional environmental rights and legitimate interests. On 17.09.1997 the second gathering took place – the meeting of the territorial community of the Luzanivsky microdistrict, where residents asked the local authorities to conduct an environmental assessment of the situation in the Luzanivsky microdistrict and decided to seek recognition of the Luzanivsky district as a zone of ecological disaster, in support of which 4693 signatures were collected. After the meeting of the territorial community of the microdistrict, the Odessa City Council financed an environmental expertise and attracted to this the Odessa Physico-Chemical Institute for Environmental and Human Protection.

For years, citizens have drawn the attention of numerous government bodies and the local self-government, personally deputys of councils at different levels to the fact that as a result of the exploitation of the WSS, the Luzanivsky microdistrict turned out to be in an extremely difficult ecological condition. Based on the checks conducted in 1998-1999 by the Physico-Chemical Institute for Environmental and Human Protection, the level of air pollution of the residential zone with petroleum hydrocarbons, sulfuric anhydride, nitrogen oxides, carbon monoxide achieved an average of 1-3 MPCs, and in the period of an explosive release reached 10 MPCs. In a particularly grave condition were the residents of houses located near the WSS (1a Sortuvalna Str., Chervona Str.), where oil hydrocarbons, sulfuric anhydride, hydrogen sulfide were repeatedly exceeded MPC norms 40, 10, 12 times, respectively.

Imperfect technology led to the formation of oil-evaporation ponds that pollute the Black Sea and the Kuyalnik Estuary. The pollution of the coastal waters of the Kuyalnik Estuary and the sea area near the “Luzanivka” beach with petroleum products exceeded the MAC norms 20-50 times, and at high temperatures and after rain the excess reached 100 MPCs.

Studies conducted by the Ukrainian Research Institute of Transport Medicine showed that the disease rate among the population of the microdistrict was three times higher than that of the population of other districts of the city. The residents of the Luzanivsky microdistrict (36 people) suffered mainly from diseases of the endocrine, the urinary systems, blood and hematopoietic diseases, oncopathology, rheumatism, etc., systematically exposed to the pollution from the WSS.

Finally, on 11.02.1999, the carbons in the zone of standing of the working area 100 times the concentration of the district residuary standard, the State Administration for Environmental Protection of Ukraine decided to stop the violation of MPC excess grossly.

"On Environmental Protection of the Public Health, brought to administrative liability according Administrative Offenses in Ukraine, discharging pollutants into the environment".

The first reaction was by the Ministry of Transport of Ukraine “Failure to carry out the decision of the Chief Sanitary Inspector in the Odessa Region” which prohibited to wash tanks of the atmospheric air pollution from the WSS and the wagon service with the WSS from the resort area.

Due to repeated collapses of the microdistrict, on 12.05.1999, the Ministry of Transport of Ukraine submitted an order for the city to immediately resolve the problems in the Odessa railway.
ogy, rheumatism, etc., suggesting that this category of subjects was systematically exposed to a complex of physical and chemical factors of multidirectional actions.

Finally, on 11.02.1998, in connection with the fact that hydrocarbons in the zone of steaming railway tanks exceeded MPCs of the working area 100 times and more, which led to the health deterioration of the district residents, the Environmental Inspectorate of the State Administration for Environmental Safety in the Odessa region decided to stop the production activity of the WSS. The allowance of MPC exceed grossly violated, in particular, the Law of Ukraine “On Environmental Protection” and “On Ensuring the Sanitary and Epidemic Wellbeing of the Population”. The head of the WSS was brought to administrative liability under Article 78 of the Code of Administrative Offenses of Ukraine “Violation of the procedure for discharging pollutants into the atmosphere or harmful influence of physical and biological factors on it”. On 02.03.1998, as a result of the checks, the deputy head of the WSP was brought to administrative liability under Article 188-5 of the Code of Administrative Offenses of Ukraine “Failure to comply with legal orders or directives of officials of bodies exercising state control in the field of environmental protection, use of natural resources, radiation and nuclear safety or protection of natural resources”, because the departmental laboratory control over the level of contamination of atmospheric air had not been introduced.

The first reaction acts followed on the part of the Odessa Railway. In particular, by order of the Odessa Railway Administration of the Ministry of Transport of Ukraine “On the implementation of the decision of the Chief State Inspector of Environmental Protection in the Odessa Region” dated 24.02.1998, No. 50/71, the WSS was prohibited to wash tanks from crude oil until the established norms of atmospheric air pollution were not exceeded, the chief road inspector and the wagon service were requested to consider the transfer of the WSS from the resort area of the city of Odessa.

Due to repeated complaints of residents of the Luzanivsky microdistrict, on 12.05.1998, the General Prosecutor’s Office of Ukraine submitted an order to the General Director of Ukrzaliznytsia to immediately resolve the issue of moving the WSS outside the city boundaries. However, these requirements were not met by the Odessa railway.
At the end of December 1998, residents of the Luzanivsky microdistrict were forced to repeatedly appeal to the authorities on the issue that almost every night there was an illegal washing of tanks from oil, oil products and dangerous chemicals, the inspectors of the State Administration for Ecological Safety in the Odessa region did not appear on calls during the commission of violations. Taking into account the above, the Odessa City Mayor appealed to the President of Ukraine with a request to resolve the issue of moving the Odessa railway WSS outside the city of Odessa. The President supported this proposal.

Using Article 55 of the Constitution of Ukraine, which guarantees a right to appeal in the court against decisions, actions or inactivity of public authorities, local self-government bodies, public and official servants, 62 residents of the Luzanivsky microdistrict filed a suit in the Suvorovsky district court of Odessa. They pointed out that the WSS is the main risk factor for their health and the health of their children. However, there were facts of creating obstacles to filing lawsuits in court by judges. Judicial decisions were given to the plaintiffs later than the date before which they had the opportunity to appeal them, etc. Residents of the Luzanivsky microdistrict repeatedly appealed, in particular, to the chairman of the Odessa regional court to ensure timely consideration of cases in court and to eliminate other violations of Ukrainian legislation. This situation testified that in the Ukrainian courts at that time there was no practice of protecting the rights of the population, especially in environmental cases. Citizens' appeals to the court forced the Odessa City Council to create a working group for the preparation of the draft decision of the City Council session to address environmental problems of the Luzanivsky microdistrict. The working group included scientists, environmentalists from nature protection agencies of the city and the region, heads of the Odessa railway and the WSS, representatives of the Sanitary and Epidemiological Service, the chairman of the Luzanivsky microdistrict self-government committee, the chairman of the permanent deputy commission on public health and the environment, and others.

However, citizens didn’t abandon their efforts. In particular, on 26.06.1999 an open meeting of the Luzanivsky microdistrict residents was held, at which the draft decision of the Odessa City Council “On the measures taken to solve the problems of the microdistrict "Luzanivsky"” was presented. The community expressed their deep gratitude to the chairman of the council for his activity and showed the need for the draft decision “On the measures taken to solve the problem of illegal washing and steaming of tanks” and a sharp protest. At this meeting it was decided to require the Odessa City Council to change the decision “On the removal of the WSS steam station outside the city” to the meeting of the territorial council.

In addition, they asked the chairman of the City Council on June 26, 1999 to continue to appeal to the President of Ukraine, demand that the steam station be removed.

Three meetings of the council were held, which focused on this situation. The condition of the Luzanivsky microdistrict residents for this situation were the main concern of the council. The results of the work of the above-mentioned council were documented in the minutes of the meeting. On 09.11.1999, following an inspection of the above-mentioned problem, the council decided to move the WSS outside the city.

On 10.11.1999, the council instructed No. 354 / 284 on the functioning of the...
“Luzanivsky” was promulgated. The local community members expressed their deep gratitude to the City Council for their desire to specifically help in solving their problems. However, paragraph 3 of the draft decision “On the reconstruction of the Odessa-Sortuvalna washing and steaming station” caused their lack of understanding and a sharp protest. At an open meeting of residents of the microdistrict it was decided to apply to the Odessa City Council with the requirement to exclude paragraph 3 “On the reconstruction of the Odessa-Sortuvalna washing and steaming station” as contradicting Ukrainian environmental legislation that prohibits the placement and operation of particularly hazardous facilities in the residential area of the settlement, as well as in the recreational zone. In addition, according to the Law of Ukraine “On Ecological Expertise”, any decision on the reconstruction of the facility, taken without a positive conclusion of the environmental expertise, would be illegal. The residents of the Luzanivsky microdistrict decided to appeal to the Odessa City Council to change the wording of the paragraph to the following: “On the removal of the Odessa-Sortuvalna washing and steaming station outside the city of Odessa”. This decision was taken at the meeting of the territorial community held on September 17, 1997. In addition, they asked to provide an opportunity for a representative from the Luzanivsky district community to speak at the session of the City Council on June 29. Also, the residents of the microdistrict continued to appeal to all government agencies, including the President of Ukraine, demanding that the Odessa-Sortuvalna washing and steaming station be removed outside the city boundaries.

Three meetings of the working group of the Odessa City Council were held, which facilitated the work on analysing the ecological condition of the Luzanivsky microdistrict. As a result, the reasons for this situation were found. The members of the working group inspected the “Sortirovchnaya-Chernomorskaya” station (“Chernomorsky” settlement), where the WSS could be transferred. As a result of the work of the group, a draft decision was developed on 09.11.1999. Following this, the Odessa mayor held a meeting, where the above-mentioned project was considered and a proposal was made to move the WSS outside the city boundaries.

On 10.11.1999, the working meeting on the fulfillment of instruction No. 354 / 2843-01 of the President of Ukraine L. D. Kuchma on the functioning of the WSS took place in the City Executive
The Odessa railway transport “Ukrzaliznytsia” in a letter of October 17, 1999, of the Committee of the Luzaniyevsk Department of the Council of the Cultural and Educational Organisation of the City of Odessa dated 27.09.2000 / on measures to improve the location of the washing and steaming station “Odessa-Sortuvalna” from 15.04.2000. However, on January 4, 2001, in a letter of the Chairman of the Odessa mayor, the chairman of the Odessa City Council, Verkhovna Rada of Ukraine, December 31 to January 4, 2001, the illegal washing tank was under way at the WSS, as a result of the activity of the Odessa-Sortuvalna washing and steaming station, Odessa City Council decided to:

- stop the activities of the WSS from December 31, 2000;
- immediately stop washing the tanks from oil products at the WSS from 22.00 to 6.00;
- immediately provide low-sulfur fuel oil to the boiler station “Odessa-Sortuvalna” and by December 31, 2000 transfer it to gas fuel;
- liquidate the evaporation ponds of the WSS by December 31, 2002;
• carry out May 1, 2003, the recultivation and planting of the territory, freed from evaporation ponds.

The Odessa railway of the State Administration of Railway Transport “Ukrzaliznytsia” of the Ministry of Transport of Ukraine in a letter of October 17, 2000, informed the public self-government Committee of the Lузанівський district that in order to ensure the implementation of the decision of Ukrzaliznytsia of 05.10.2000 on the organisation of the execution of the instruction of the President of Ukraine dated 27.09.2000 / to No. 22 / 113499-15 PC dated 20.09.2000 / on measures to ensure ecological balance in the area of the location of the washing and steaming station “Odessa-Sorтуvalna” of the Odessa railway, by order of the Odessa railway head dated 12.10.2000. No. 380 / N, the washing-steam station “Odessa-Sorтуvalna” from 15.12.2000 ceases its activity.

However, on January 9, 2001 the local self-government Committee of the Lузанівський district addressed a letter to the Prosecutor General of Ukraine, the President of Ukraine, the Minister of Emergency Situations of Ukraine, the Minister of Ecology and Natural Resources of Ukraine, the Governor of the Odessa Region, the Odessa mayor, the chairman of the Green Party of Ukraine, deputies of the Odessa City Council, the Odessa Regional Council and the Verkhovna Rada of Ukraine. The letter stated that on the night of December 31 to January 1, of January 1 to January 2, of January 3 to January 4, 2001, the illegal cleaning of oil tanks from oil products was under way at the WSS, as residents reported to the emergency service 077. Corrosive asphyxiating gaseous fumes led to a deterioration in the health of residents of nearby houses in 1st Sorтуvalna and Chervona Streets. Thus, the instructions of the President of Ukraine, as well as the decision of the Odessa City Council of 09.12.1999 on the closure of the WSS in December 2000, were violated. The letter contained a requirement to check the territory of the WSS for compliance with the environmental legislation and take measures to prevent offenses.

After all, the WSS “Odessa-Sorтуvalna” ceased its activities. However, on the territory of the Lузанівський microdistrict the settling ponds of the WSS were still left. It should be noted that as far back as 1985, by resolution of the Council of Ministers of the Ukrainian SSR No. 102, a decision was made to liquidate the WSS settling ponds. By order of the Odessa Regional Council, the Odessa railway
administration was proposed by 01.01.1997 to eliminate the WSS evaporation ponds. During 1992-1997, about 19 thousand cubic meters of contaminated water were removed from the lakes of the washing and steaming station, of which 6,400 tons of water-oil emulsions with a moisture content of 40-50% were allocated and sold to consumers. However, estimates indicated that remains of water-oil emulsions in the amount of about 100 tons, about 40 thousand cubic meters of produced water, and about 4500 tons of bottom sediments were left in the WSS ponds.

In June 1999, the possible ways of solving environmental problems in the Luzanivsky microdistrict were considered, in particular, for the liquidation of settling ponds the contract “Development, testing and introduction of equipment for the liquidation of settling ponds of the washing and steaming station “Odessa-Sortuvalna”” between the Department for Ecological Safety of the Executive Committee of the Odessa City Council and the JSC “Transsound”. However, the problem was not solved.

Continuing to occupy an active civic position, on 05.04.2001 the public self-government Committee of the Luzanivsky microdistrict addressed a letter to the Odessa city head Bodelan R. B. with a proposal to involve its members in the creation of the “Sustainable Development Programme for the Luzanivsky microdistrict” in order to transform the microdistrict into a blossoming corner of Odessa, having submitted its proposals to the draft Programme.

As of 2003, 4.5 ha of 13 evaporation ponds and storage ponds of the WSS contaminated with oil waste and located on the territory of the “Odessa-Sortuvalna” station were eliminated. However, a significant part of oil sediments is still in the natural Luzanivka lakes located on the territory of the Odessa city community. For many years, in summertime, the buffer pond dries up, and oil waste burns for a long time from heat. The possibilities for extinguishing it are limited. Residents of nearby neighborhoods complain of suffocating smoke, and as a result, poor health. In addition, the abandoned territory of the Luzanivka lakes has become a place of spontaneous dumps. With a view to eliminating oil pollution of the Luzanov lakes, which is also a source of soil and groundwater contamination of the Kuyalnik Estuary, a feasibility study on the rehabilitation of the Luzanivka lakes was developed, which, in the public opinion, required substantial improvement.

It is important to note that the Committee of the Luzanivsky microdistrict, MA-86-Odessa, as well as the Ministry of the Interior of Ukraine, It was the mothers and grandmothers that played a key role in being able to realize their environmental concerns.

On the basis of Art. 10 of the Law of Ukraine “On Ecological Examination” from November 28, 1996, on the basis of a public environmental assessment study for the rehabilitation of the “Odessa-Sortuvalna” station, it was decided to carry out the rehabilitation by the Department of Environmental Protection of the Odessa City Council. The public expert panel of the Department of Environmental Protection of the National University “Odessa National University of Law and Environmental Law Academy” A. I. Chirchulevich, expert panelists, experts on sustainable development, discuss the rehabilitation of the wetlands, experts on climate change – economist MPA L.O. Grishulevich.

The experts of the panel arrived at the conclusion that the rehabilitation project did not meet the requirements of the National Academy of Sciences of Ukraine in terms of content and development. The experts recommended that the project should be revised, finalised, updated, and the title of the updated project should be “Luzanivka lakes rehabilitation”. The experts of the panel also recommended that the rehabilitation project should be based on real pollution data. Both oil and heavy metal sediments of the Luzanivka lakes project materials should be supplemented with data on the specific characteristics of the pollution.
It is important to note that both the public self-government Committee of the Luzanivsky microdistrict and the NGO MA-MA-86-Odessa, as well as the “Black Sea Women’s Club” founded in 2007 by residents of Luzanivka were entirely women’s organizations. It was the mothers and grandmothers of the Luzanivsky microdistrict that played a key role in the fact that the residents of Luzanivka were able to realize their environmental rights.

On the basis of Articles 12, 16, 41 of the Law of Ukraine “On Ecological Examination”, the public organization “MAMA-86-Odessa” from November 28, 2016 to December 31, 2016 conducted a public environmental assessment of the documentation on the feasibility study for the rehabilitation of the Luzanivka lakes area at the address: Odessa, Suvorovsky district, the territory of the Luzanivka lakes. The public expert board included: Candidate of Law, Professor of the Department of Agricultural, Land and Environmental Law, National University “Odessa Law Academy” I. I. Karakash, Candidates of Law, Associate Professors of the Department of Agrarian, Land and Environmental Law of the National University “Odessa Law Academy” A. I. Cheremnova and V. O. Yureskul, environmentalists, experts on sustainable development and adaptation to global climate change – economist S. F. Slesarenok and engineer ecologist, MPA L.O. Grichulevich.

The experts of the public ecological expertise came to the unanimous conclusion that the documents submitted for examination on the implementation of measures for recultivation of disturbed lands did not meet the requirements of the current legislation of Ukraine in terms of content and design and required substantial improvement, revision, finalisation, updating and clarification. The format, contents and the title of the updated and finalised project documents for the Luzanivka lakes rehabilitation should comply with the requirements of the current legislation and, in accordance with the current legislation, be in the format of a working land development project of the Luzanivka lakes rehabilitation. The rehabilitation measures to be proposed in the updated documents should be properly justified, based on real pollution data, and should cover all types of pollution, both oil and heavy metals pollution, as well as soils and bottom sediments of the Luzanov lakes. Contamination maps in updated project materials should be properly described, based on legally obtained pollution data. Also, it should be properly justified why one
or another method of investigating the pollution of the territory of the Luzanivka lakes was chosen.

Today it is officially recognized that the Luzanivsky micro-district is located within the zones of sanitary protection of the balneological resort Kuyalnik. However, it is necessary to pay attention to certain difficulties of legal regulation and the need to take measures to improve it. Kuyalnik is one of the oldest mud resorts in Ukraine, whose resources started to be used in 1833. The decree of the Council of Ministers of the Ukrainian SSR “On the boundaries of the district and zones of sanitary protection of the Kuyalnik resort in the Odessa region” No. 102 dated 07.03.1985 approved the boundaries of the district and sanitary protection zones of the Kuyalnik resort, as well as the plan of sanitary measures in the resort area. The implementation of measures of the resolution, ensuring continuous monitoring of the sanitary condition and protection of natural medicinal properties within the health protection zone of the resort were entrusted to the Ministry of Health of the USSR, the USSR State Committee for Nature Protection, the State Committee of Ukraine on Industrial Safety and Mining Supervision, the Ukrainian Republican Council of Trade Union Resorts and the Odessa Regional Executive Committee. However, for a long time the provisions stipulated by the governmental decree were not fulfilled. In particular, the boundaries of the Kuyalnik health protection district and the limits of its water protection zones are still not in place (not defined in the locality), and its legal status remains without a clear definition. The listed bodies have long been reorganized, and some of them do not actually exist. The Regional Programme for the Conservation and Restoration of Water Resources in the Kuyalnik Estuary Basin for 2012-2016, approved by the decision of the Odessa Regional Council No. 270-VI dated 28.10.2011 stipulated the introduction of the boundaries of the district and the sanitary protection zones of the Kuyalnik resort in accordance with the requirements of the resolution of the Council of Ministers of the USSR dated 07.03.1985. However, this Regional Programme for various reasons is also not being properly implemented. There is a situation when the normative legal acts of the former USSR, the Ukrainian SSR did not establish the type and status of the Kuyalnik resort, which does not meet the requirements of modern Ukrainian legislation.

People’s deputy of Ukraine create a resort of national importance would allow the recreation of citizens. Such a task is designated in the “Program of the State Institution “Ukrainskiy National Scientific Research Institute of Social Rehabilitation and Balneology” for 2011-2015”. According to the Law of Ukraine “On the decision on declaring national importance is taken by the proposal of the Cabinet of Ministers of Ukraine dated January 29, 2016, people’s deputy request to the results of consideration 28.03.2016 reported that the Ministry of Ecological and Environmental Protection of Ukraine reported in the tender to the Ministry of Ecological and Environmental Protection of Ukraine V.B. Groisman that the Estuary today is abandoned and does not ensure the production of ambient water. It cannot afford to calmly treat the results of this work. However, the measures taken were not enough. The deputy request dated 21.06.2015 of Ukraine V.B. Groisman is not足 enough. The Estuary today is abandoned and does not ensure the production of ambient water. It cannot afford to calmly treat the results of this work. However, the measures taken were not enough. The deputy request dated 21.06.2015 of Ukraine V.B. Groisman is not determined to take action. Taking into account the zone of the Black Sea – the biological wastewater conservation of biological, also of Europe and African water areas is key for the protection of biodiversity, the creation of the Odessa Wetland Lakes. The creation of support to the sustainable development of the Kuyalnik (Zernovy), Luzanivka territory of the wetland.
People's deputy of Ukraine S.V. Kivalov considers it necessary to create a resort of national importance on the territory of the Kuyalnik Estuary. Granting the given territory the status of a resort of state importance would allow to use a unique medical complex for the recreation of citizens. Such an initiative is supported by specialists of the state institution “Ukrainian Research Institute of Medical Rehabilitation and Balneology of the Ministry of Health of Ukraine”. In accordance with the Law of Ukraine “On Resorts” of 05.10.2000, the decision on declaring natural territories as resort areas of state importance is taken by the Verkhovna Rada of Ukraine on the proposal of the Cabinet of Ministers of Ukraine. In this connection, on January 29, 2016, people's deputy of Ukraine S.V. Kivalov addressed a deputy request to the Prime Minister of Ukraine. Based on the results of consideration, the letter for ref. No. 4820/0 / 2-16 of 28.03.2016 reported that the Odessa Regional State Administration and the Ministry of Economic Development and Trade of Ukraine had been ordered to “work through the issue raised”. Besides, the letter of the Odessa Regional State Administration of March 11, 2016 No. 680 / 02-05 / 01/1057 reported that the work on the issues raised continues and of the further additional information on the results of this work. However, as of spring 2017, no additional replies on the measures taken were received. In connection with this, another deputy request dated 23.03.2017 was prepared to Prime Minister of Ukraine V.B. Groisman. It must be said directly that the Kuyalnik Estuary today is abandoned by the state. However, residents of Odessa cannot afford to calmly watch the destruction of a natural pearl and are determined to take drastic measures.

Taking into account that the ecosystem Luzanivka — coastal zone of the Black Sea — Kuyalnik Estuary — Khadzhibey Estuary — the biological wastewater treatment field plays a huge role for the conservation of biological diversity not only within Ukraine but also of Europe and Africa, and the hydrological factor of the shallow water areas is key for the formation of biocenoses and maintenance of biological diversity, the NGO “MAMA-86-Odessa” initiated the creation of the Odessa Wetland Park on the territory of the Luzanivka lakes. The creation of such an object can give a powerful impetus to the sustainable development of the depressed microdistricts of Kuyalnik (Zernovy), Luzanivsky, Shevchenko-3 located around the territory of the wetland park, solve the problem of air pollution with
hydrocarbons, and contribute to the solution of the challenging task of water reduction due to the accompanying works on melioration of residential areas. Also, the option of transferring the “Odessa–Sor- tuvalna” sorting station to the “Chernomorskaya” station built for this purpose in the 80s may be perfect for increasing the recreational potential of the territory.

The idea of creating a wetland park in the Luzanivka lakes area emerged in 2008 in the context of implementing the social project “Public environmental assessment of the project for reconstruction and densification of the Luzanivsky microdistrict”. Then this idea, in parallel with the discussion of the above-mentioned project was discussed at the meetings of residents in practically every yard of the microdistrict and was positively received by its residents. In September–December 2016, during the implementation of the social project “Implementation of public environmental assessment of the feasibility study of Luzanivka lakes rehabilitation”, 3 round tables were held. The round tables addressed the following topics: “Feasibility Study of Luzanivka Lakes Rehabilitation”, “Public Environmental Assessment of the Feasibility Study of the Luzanivka Lakes Rehabilitation” and the “Wetland Park Creation Concept”. Two round tables were held in the microdistricts “Luzanivsky” and “Shevchenko–3”. Residents of the Luzanivsky microdistrict are primarily concerned with fires that break out each summer during the drying out of the Luzanivka lakes and the flooding of Luzanivka’s houses with storm water (there is no storm sewage). In the idea of preserving the Luzanivka lakes in a natural state, residents of the Luzanivsky microdistrict primarily see a guarantee of diversion of excess water from the territory of Luzanivka to a lower-lying territory. They are interested in implementing the idea of creating a wetland park in the Luzanivka lakes area and see this project as a complex project for the preservation of the unified ecological system of Luzanivka lakes – Kuyalnik. Residents of Shevchenko–3 also support the idea of creating a wetland park and preserving the Luzanivka lakes in their natural state.

Creation of a wetland park is considered as a significant factor in creating favorable conditions for the development of protected areas within recreational and rehabilitation zones, in particular, supporting the creation of the National Park “Kuyalnitsky”.

Rehabilitation and renaturalization of disturbed ecosystems have an impressive number of advantages, including the improve-
ment of the quality of life for Odessa residents, saving the Kuyalnik Estuary from drying out by replenishing it with sea and storm water, increasing the resort appeal of Odessa through the creation of new recreational complexes with improved modern infrastructure. Here, the environment should be presented as a multifunctional system of interrelated and interdependent links of a unique natural chain and environmentally balanced economic activity. The proposed concept for the creation of a wetland park in the Luzanivka lakes territory will make it possible to see the ways of managing the natural ecosystems of wetlands and the unique steppe areas of the Kuyalnik Estuary, to introduce modern forms of city planning with a harmonious combination of urbanised areas and oases of wildlife.

On 18.06.2013, the Odessa City Council adopted decision No. 3522-VI “On granting consent for the inclusion of the lands of the Odessa City Council with a total area of 161,399 ha into the created National Nature Park “Kuyalnitsky””, by which it agreed on the inclusion in the National Nature Park “Kuyalnitsky” the lands of the Odessa City Council with a total area of 161,399 ha, of which the territory of the resort “Kuyalnik” (including the Pirogov sanatorium) has an area of 67,539 ha without withdrawal from the user. Currently, the process of creating the National Nature Park (hereinafter – NNP) “Kuyalnitsky” is experiencing certain difficulties, but regardless of when and how the NNP is created, the Luzanivka lakes will and must remain an indivisible part of the ecosystem of the Kuyalnik Estuary, which should be considered when designing the park.

According to the International Organization for Economic Co-operation and Development (OECD), which carried out extensive research, having studied models of the projected effects of climate change in 136 port cities around the world, including Odessa, the Black Sea level is expected to rise no less than half a meter already by 2070. And although this process is quite stretched in time, yet in the potential risk zone only in Odessa there are tens of thousands of Odessa residents. The proposed project to create a wetland park can reduce risks related to the rise in the Black Sea level for people living in low-lying areas in the city of Odessa. An important role in adapting to climate change can be played by the properly organized territory of the wetland park.

The potential set of modules for the territorial organization of the wetland park could be as follows:
1. Specially equipped lakes (ponds) for cleaning storm water from the microdistricts Shevchenko-3, Luzanivka, Zernovy (Kotovsky settlement);
2. A lake for canoeing with infrastructure (near the Shevchenko-3 microdistrict);
3. A promenade for Shevchenko-3 Pisochna Street
4. Wooden (any other natural material) observation towers for bird-watching;
5. Ecological paths along lakes with stands-classifiers of local flora and fauna, aimed at different visitors (family leisure, students, tourists, specialists)
6. A visit centre, consisting of special blocks, aimed at different visitors; blocks should include historical, environmental, information, service, administrative ones;
7. The site for the start of tourist routes along the wetland park and around the Kuyalnik Estuary (horse-riding, walking)
8. Ecological parking for transport of visitors coated not with solid but special focal grassy concrete.

For sustainable development of residential areas in Odessa and the creation of a harmonious ecological environment, it is necessary to introduce modern forms of planning the urban environment with an effective combination of urbanized areas with the oases of the wild nature of the city. A wetland park is a park where the landscape, flora and fauna of the natural ecological system of wetlands are preserved as much as possible. The Odessa Wetland Park should demonstrate the diversity of wetland ecosystems in Odessa and emphasize the need for their conservation. It should be a place to provide education and recreation opportunities aimed at the conservation of wetlands, be convenient for use by both local residents and foreign visitors. The mission of the Odessa Wetland Park is to enhance knowledge, understanding and awareness of the public about the value of wetlands throughout Eastern Europe, Caucasus and Central Asia and beyond the region, and to mobilize public support and action for the conservation of coastal wetlands. With the right approach and the appropriate arrangement of the lower reaches of Kuyalnik, the Luzanivka lakes can become a green resort, an object of acquaintance with nature, a place for recreation of citizens and visitors of the city. The Odessa Wetland Park should also become an important educational object that forms a careful attitude to nature in children. It could feature pedestrian ecological trails, outdoor environmental education, the infrastructure for ecological educational centres for hard-core environmental education for tourists, and creation of an eco-tourist information and education centre for environmental education in the Odessa Wetland Park, conservation of the Odessa Wetland Park, and environmental education in the ethnography and traditions of the indigenous people.

Concerning the biological diversity of the wetland park, it can be argued that a major focus on the monitoring of wetland ecosystems in the Black Sea Region as a whole would become a basis for considering the wider occurrence of a scientific collection of wetland ecosystems. A rehabilitation clinic for endangered species will be important for the sustainable development of the resort infrastructure of the Odessa Wetland Park. Conservation of the beauty of landscapes in the wetland park, it would be good to create a new Odessa Wetland Park, another important problem of the Kuyalnik Estuary. The solution here is to replace the natural connection of the lower reaches of the Kuyalnik with the Lower Kuyalnik, to combine the Luzanivka, and to combine the technical side of the organization of the transport infrastructure. In time, long-term planning for conversion of the waterfront, and developments in clean and low-noise transport, the rehabilitation of the river channel, the creation of protective screens to regulate the flow of visitors to the wetland park.
pedestrian ecological trails and sites for bird-watching in the natural environment, the infrastructure of attractions and entertainment and educational centres for healthy lifestyle and ecological knowledge, the centre for environmental education for schoolchildren and students, tourist information and visit centres. To increase tourists’ interest in the Odessa Wetland Park, and taking into account the rich history, ethnography and traditions of the region, it is worth locating here the ethnography and traditional nature management centre.

Concerning the biological aspects of the establishment of a wetland park, it can be argued that it requires a centre for the ecological monitoring of wetland and coastal ecosystems of the North-Western Black Sea Region as a scientific conservation centre, which will become a basis for conducting both research and preparation for expeditions, as well as environmental conferences and seminars. The presence of a scientific conservation centre as part of the wetland park would be the best tool for popularizing environmental knowledge. A rehabilitation clinic for wild animals and a vector control service will be important for the functioning of the nature protection and resort infrastructure of the wetland park. Having the described powerful biological and nature protection scientific base and the natural diversity of landscapes of the lower reaches of the Kuyalnik Estuary in the wetland park, it would be advisable to consider the possibility of locating here a new Odessa zoo, where animals could be kept in more spacious conditions close to natural habitats. The creation of the Odessa Wetland Park is consistent with the successful solution of another important problem – the counteraction to the drying out of the Kuyalnik Estuary. Not only logical, but also the only possible solution here is to replenish the estuary with sea water. Given the natural connection of the sea coast with the natural landscapes of the lower reaches of the Kuyalnik Estuary, it seems expedient to combine the Luzanivka resort and the Odessa Wetland Park. The technical side of the organization of the wetland park is the development of the transport infrastructure of the district. At the same time, long-term planning is important, given the growth of traffic flows through the park’s territory and the need for preferential use of clean and low-noise transport solutions, namely, the increased role of electric transport, the removal of highways to flyovers and the use of protective screens to reduce the effect of noise on residents and visitors to the wetland park. Based on the need to ensure cleanliness
of the environment, the promotion of clean energy technologies and the growing interest in this, an important ecological facility in the wetland park will be a demonstration ecological energy complex, including wind and solar power blocks. The latter could work as part of a centre for adaptation to global climate change.

Thus, the following main objectives form the basis for the ecological development of the territories and water areas of the lower reaches of the Kuyalnik Estuary:

- ecological and sanitary rehabilitation and renaturalization of disturbed lower reaches of the Kuyalnik Estuary;
- saving of the Kuyalnik Estuary from drying out;
- reproduction of wetlands and breeding sites for birds that existed here earlier to preserve biological diversity towards Ukraine’s implementation of ratified international conventions;
- use of the potential of territories and water areas adjacent to the mouth of the Kuyalnik Estuary to increase the attractiveness of the resort areas and Odessa as a whole;
- creation of an ecological scientific and educational centre;
- improvement of the life quality of Odessa residents by creating an oasis of natural habitat.

Important for achieving these objectives and appropriate for the proper operation of the wetland park are:

- functional association of the Odessa Wetland Park and resorts of Luzanivka and Kuyalnik and the development of a single tourist service system;
- organization of a network of tourist information and visiting centres;
- creation of a system of ecological trails and areas for bird-watching in natural habitat;
- creation of entertainment and educational centres for a healthy lifestyle and environmental knowledge and attractions infrastructure;
- organization of an environmental education center for schoolchildren and students;
- organization of a center for environmental monitoring of wetland and coastal ecosystems of the North-Western Black Sea Region with berths for environmentally friendly small vessels;

- opening of a geography centre;
- implementation of transport infrastructure;
- organization of innovative climate change;
- creating a co-operative;
- establishment of a territory;
- using the potential of territories;
- constructing, including.

Thus, a rehabilitation of Luzanivka lakes will become a priority for the quality of life both for the residents of the city and for the city of Odessa, and for the city of Odessa as a whole.

We have some such long lasting activities, the improvement of the environment of residents of the city of Odessa is still in progress.

NOTES (SHORT CHECKLIST) OF THE MAIN NOTES RELATED TO THE TERRORISM

THE CONSTITUTION OF THE REPUBLIC OF UKRAINE

The Constitution of the Republic of Ukraine is the supreme law of the country, it regulates property rights and freedoms of each person and provides for the protection of the environment. The Constitution of the Republic of Ukraine is based on the principle of equality of all citizens and the importance of free and fair elections. It also recognizes the right to free speech and the freedom of religion. The Constitution of the Republic of Ukraine is the supreme law of the country and it is the basis for the functioning of the government.
• opening of a traditional nature management and ethnography centre;
• implementation of an opportunity of developing transport infrastructure, including green transportation and transport technologies;
• organization of a regional centre for adaptation to global climate change;
• creation of a rehabilitation center for wild animals;
• establishment of a vector control service;
• using the possibility of moving the Odessa Zoo onto the territory adjacent to the mouth of the Kuyalnik Estuary;
• construction of a demonstration ecological energy complex including wind and solar power blocks.

Thus, a rehabilitated and well-organized territory of the Luzanivka lakes will become a factor of significant improvement in the quality of life both for the communities of the adjacent territories and for the city of Odessa, and will also enhance the recreational attraction of Odessa city.

We have some successful practice in the result of persevering long-lasting activities, but ensuring the right to safe and healthy environment of residents of the district “Luzanivsky” of the city of Odessa is still in progress.

NOTES (SHORT CHARACTERISTIC OF THE MAIN NORMATIVE ACTS OF UKRAINE RELATED TO THE QUESTION)

THE CONSTITUTION OF UKRAINE ADOPTED AT THE FIFTH SESSION OF THE VERKHOVNA RADA OF UKRAINE ON JUNE 28, 1996

The Constitution of Ukraine plays a fundamental role in the regulation of property relations on natural objects and their resources, nature management, environmental protection, recognition, protection of environmental rights and a person's lawful interests. This role is predetermined by the fact that the Constitution defines the rights and freedoms of man and citizen, guarantees their observance and protection, lays the foundations of the legal system, enshrines principles of organization and limits of the exercise of state power,
The Constitution is the main law of the country. It has the highest legal force, and its norms are the norms of direct effect. Constitutional norms act as a legal basis for the formation and functioning of the national legal system. Therefore, constitutional norms are the fundamental sources for all branches of law. Their fundamental character determines the legal basis for the state’s ecological doctrine and the development of a system of general and special norms of environmental law.

The constitutional consolidation of environmental provisions primarily concerns environmental rights of the human being, its place in society and the state, determines its constitutional environmental and legal status. So, Art. 3 of the Constitution for the first time during the entire period of Ukraine’s constitutional development contains a provision recognizing a person, his/her life and health, honour and dignity, inviolability and security as the highest social value. Human rights and freedoms and their guarantees determine the essence and orientation of the activity of the State. The State is answerable to the individual for its activity. To affirm and ensure human rights and freedoms is the main duty of the State.

When analyzing the Constitution of Ukraine as a source of environmental law, in its content there can be distinguished three groups of environmental norms: direct environmental (nature protection) norms; norms which contain provisions on the use of natural resources; norms which establish the competence of state authorities and local self-government bodies in the sphere of environmental protection. Such a division of constitutionally fixed environmental norms of law on the utilization of nature and environmental protection allows us to consider them more systematically.

The first group of norms that constitute direct environmental (nature protection) norms includes the provisions of Art. 16 and Art. 50 of the Constitution of Ukraine. Thus, according to Art. 16 of the Fundamental Law of the country, to ensure ecological safety and to maintain the ecological balance on the territory of Ukraine, to overcome the consequences of the Chernobyl catastrophe – a catastrophe of global scale, is the duty of the State. According to Art. 50 of the Constitution, everyone has the right to an environment that is safe for life and health, and to compensation for damages inflicted through the violation of this right. An environment that is safe for life and health is a state of the environment in which the prevention of deterioration of the environment, in particular, creating ecological conditions for the human being, ensuring ecological safety are determined, and the environmental, organizational, and other requirements are established. The State, in particular, environmental, and other requirements are established.

According to Part 2, everyone is guaranteed the right to the environmental situation and also the right to disseminate such information secret.

Together with the above, everyone is entitled and to compensate for all, and in part 7 of Art. 41 of the Constitution, such obligations are imposed, and the property shall not aggravate such legal relations. Such a regulation of the quality and requirements of the Fundamental Laws ensuring the quality of the environment.

The second group of norms on the use of natural resources includes Art. 14 of the Constitution and the nationwide importance. According to Art. 13 of the Constitution, the natural resources (maritime) economic zones of Ukraine, the natural resources (maritime) economic zones of Ukraine, the natural resources (maritime) economic zones of Ukraine, the natural resources (maritime) economic zones of Ukraine. Every property in objects of the people’s right.

Important is the protection of the country, which stimulates the wealth that is under spe
of deterioration of the ecological situation and the emergence of danger to the vital activity of the population in a certain locality, a particular region or in the country as a whole is ensured. Criteria for ecological safety are determined by a set of interrelated economic, environmental, organizational, legal and technical requirements, in particular, environmental standards and regulations, sanitary and hygienic norms, construction and other environmental rules.

According to Part 2 of Art. 50 of the Constitution of Ukraine, everyone is guaranteed the right of free access to information about the environmental situation, the quality of food and consumer goods, and also the right to disseminate such information. No one shall make such information secret.

Together with the above, according to Art. 66 of the Constitution of Ukraine, everyone is obliged not to harm nature, cultural heritage and to compensate for any damage he or she inflicted. In addition, in part 7 of Art. 41 of the Fundamental Law, certain environmental obligations are imposed on the proprietors, in particular, the use of property shall not aggravate the ecological situation and the natural qualities of land. The principle provision is established in Art. 92 of the Constitution, which stipulates that the principles of the use of natural resources, the exclusive (maritime) economic zone and the continental shelf, the exploration of outer space, the organisation and operation of power supply systems, transportation and communications are determined exclusively by the laws of Ukraine. The above requirements of the Fundamental Law are of great importance for ensuring the quality of the natural environment.

The second group of constitutional norms containing provisions on the use of natural resources should include the norms of Art. 13 and Art. 14 of the Constitution, which establish the national belonging and the nationwide importance of the use of natural resources. Thus, according to Art. 13 of the Constitution, the land, its mineral wealth, atmosphere, water and other natural resources within the territory of Ukraine, the natural resources of its continental shelf, and the exclusive (maritime) economic zone, are objects of the right of property of the Ukrainian people. Every citizen has the right to utilise the natural objects of the people’s right of property in accordance with the law.

Important is the provision of Art. 14 of the Fundamental Law of the country, which stipulates that land is the fundamental national wealth that is under special state protection. The right of property
to land is guaranteed. This right is acquired and realised by citizens, legal persons and the State, exclusively in accordance with the law.

The group of constitutional norms with natural and resource content could include the provisions of Art. 142 of the Constitution, which stipulates that the material and financial basis for local self-government is movable and immovable property, revenues of local budgets, other funds, land, natural resources owned by territorial communities of villages, settlements, cities, city districts, and also objects of their common property that are managed by district and regional councils. The specific features of this group of constitutional norms are that they form the basis for establishing legal limits for the exercise of the right to land and other natural resource property and enshrining legislative restrictions on the rights to them.

The third group of constitutional norms which establishes the competence of state authorities and local self-government bodies in the sphere of environmental protection is quite widespread and is contained in the chapters of the Constitution. Thus, under Art. 85 of the Constitution, the authority of the Verkhovna Rada of Ukraine comprises approving national programmes of the environmental protection, and Art. 92 provides that the fundamentals of ecological safety is determined exclusively by the laws of Ukraine.

According to Para 21 of Art. 106 of the Constitution, the President of Ukraine, in the event of necessity, declares certain areas of Ukraine as zones of an ecological emergency situation, with subsequent confirmation of these decisions by the Verkhovna Rada of Ukraine. According to Para 3 of Art. 116 of the Fundamental Law of the country, the Cabinet of Ministers of Ukraine ensures the implementation of the policy in the spheres of environmental protection, ecological safety and the utilisation of nature.

Art. 119 of the Constitution establishes powers of local state administrations on their respective territory to ensure the implementation of national and regional programmes for environmental protection.

The legal significance of the reviewed provisions of the Constitution of Ukraine lies in the fact that they constitute the legal basis for the development, approval and implementation of Ukraine's environmental policy. It is in the Constitution that the most important requirements for the adoption of environmental legislation on the utilisation of nature, environmental protection and ecological safety in the country are established.

THE LAW “ON ENVIRONMENTAL PROTECTION” DATES...

The Law “On Environmental Protection”, with 16 sections, including 92 articles and 16 sections, including 92 articles, provides for the protection of the environment and living conditions of citizens, the rational use and protection of natural resources and the implementation of environmental protection, establishes the right of all citizens to ensure ecological safety, and the application of eco-friendly technologies and objects, etc. Thus, the Law “On Environmental Protection” is considered the most important legal act in the protection of the environment. During the existence of this law, its individual provisions were supplemented with many new environmental content...

THE LAW “ON THE EXAMINATION” ON...

According to the provisions of the Law “On Environmental Assessment”, the Cabinet of Ministers of Ukraine ensures the implementation of the policy in the sphere of environmental protection, rational use and protection of natural resources.

The purpose of the law is to assess the impact of anthropogenic factors on the environment and human health, as well as to ensure the rational use and protection of natural resources. The law ensures the implementation of new techniques, technological processes, and objects. Upon the submission of the project for examination, the Cabinet of Ministers may adopt a decision on the approval of the project or its refusal.

The law also establishes the right of all citizens to ensure ecological safety and the application of eco-friendly technologies and objects, etc.
THE LAW OF UKRAINE “ON ENVIRONMENTAL PROTECTION” DATED JUNE 25, 1991, NO. 1264-XII

The Law “On Environmental Protection” consists of a preamble and 16 sections, including 72 articles. It establishes the basic principles of environmental protection, defines environmental rights and obligations of citizens, the regulated powers of central and local executive authorities and local self-government bodies in the field of nature protection, establishes the basic requirements for the use of natural resources and the implementation of an environmental mechanism for the protection of the natural environment, defines natural territories and objects subject to special protection and specifies measures to ensure ecological safety, provides ways of solving disputes arising on the application of certain provisions of the law and establishes responsibilities, which can be applied for violation of its requirements, etc. Thus, the Law “On Environmental Protection” covers general and most important relations in the sphere of environmental protection. During the existence of this Law and the development of its individual provisions, a number of special laws with the relevant environmental content have been adopted.

THE LAW OF UKRAINE “ON ECOLOGICAL EXAMINATION” OF 09.02.1995. NO. 45/95-BP

According to the provisions of this Law, the task of legislation on environmental assessment is the regulation of public relations in the field of ecological expertise to ensure ecological safety, environmental protection, rational use and reproduction of natural resources, protection of environmental rights and interests of citizens and the state.

The purpose of the ecological expertise is to prevent the negative impact of anthropogenic activities on the state of the environment and human health, as well as to assess ecological safety of economic activities and the environmental situation in individual territories and objects. Upon that, the objects of ecological expertise are draft legislation, project materials, documentation on the introduction of new technics, technologies, materials, substances, products, the implementation of which may lead to violation of environmental standards, negative impact on the state of the environment. Environmental situations which have developed in individual settlements and regions, as well as existing facilities and complexes that have a
significant negative impact on the state of the natural environment can be subject to ecological expertise. Military, defense and other objects, information about which constitutes a state secret, are subject to ecological expertise in accordance with the said Law and other special legislative acts of Ukraine.

It should be noted that on May 23, 2017, the Law of Ukraine “On Environmental Impact Assessment” was adopted, which will be put into effect six months of the entry into force, that is, on December 18, 2017. In this connection, the Law of Ukraine “On Ecological Expertise” will lose its force. The new law is intended to establish a legal and organizational basis for environmental impact assessment aimed at preventing damage to the environment, ensuring ecological safety, protecting the environment, rational use and reproduction of natural resources, in deciding on the implementation of economic activities that can have a significant impact on the environment, taking into account state, public and private interests.

BACKGROUND

An independent investigation System revealed that the governmental systems that followed Hurricane Katrina displayed a failure to protect citizens of the United States. The study of the experience of African Americans, and poor whites in New Orleans, demonstrates that the risk faced by people of color and poor whites. This article will examine these issues, as an example of environmental injustice and discrimination.

1 Professor of Law and Dean, Resources Law Program, Indiana University.
4 Investigation of Performance in Hurricane Katrina on Aug.