



**REGIONAL DIRECTOR  
FOR ENVIRONMENTAL PROTECTION  
IN KRAKÓW**

OO.420.4.5.2021.AMi

Kraków, January 21, 2022.

**DECISION  
ON ENVIRONMENTAL CONDITIONS**

Pursuant to Art. 71 par. 2 point 1, Art. 75 par. 1 point 1 letter i, Art. 82 and Art. 85 par. 1 and par. 2 point 1 of the Act of 3 October 2008 on making available information on the environment and its protection, public participation in environmental protection and environmental impact assessments (Journal of Laws 2021, item 2373, as amended - hereinafter referred to as "EIA"), and Art. 104 of the Act of 14 June 1960 - the Code of Administrative Procedure (Journal of Laws 2021, item 735, as amended - hereinafter referred to as "CAP"), as well as § 2 (1) (7) (d) of the Regulation of the Council of Ministers of 10 September 2019 on projects which may significantly affect the environment (Journal of Laws 2019, item 1839),

**a f t e r c o n s i d e r a t i o n**

the application dated 22 April 2021 submitted by the proxy Mr Marcin Walter, acting on behalf of the Investor, the Institute of Meteorology and Water Management - National Research Institute, Podleśna 61, 01-673 Warsaw, concerning the issuance of the decision on environmental conditions for the undertaking called "Demolition of the existing radar tower and construction of a new meteorological radar on a plot of land no. 63, precinct Brzuchania, Miechów commune, miechowski powiat, małopolskie voivodeship",

**I r u l e**

- I. **I set the environmental conditions for the undertaking entitled: "Demolition of the existing radar tower and construction of a new meteorological radar on a plot of land no. 63, precinct Brzuchania, Miechów commune, miechowski powiat, małopolskie voivodeship" in variant I and simultaneously:**

1. **I determine:**

- 1.1. **Type and location of the project:**

The project will consist in the demolition of an existing radar tower and the construction of a new meteorological radar Brzuchania on a plot of land no. 63, precinct Brzuchania, Miechów commune, miechowski powiat, malopolskie voivodship.

The purpose of the investment will be to increase precision in monitoring the state of the atmosphere in terms of meteorological phenomena. The radar, incorporated into POLRAD Polish network of meteorological radars, will continue to provide real-time monitoring and effective warning of dangerous meteorological phenomena

(such as: strong wind, thunderstorm, tornado, intense precipitation, hail). As a result the quality of meteorological and hydrological protection will be improved as well as the level and effectiveness of protection against damage caused by flooding and other dangerous meteorological phenomena. The radar will be an element of the National Monitoring and Protection System of the Polish National Hydrological and Meteorological Service. The height of the tower will be 54.35 m, so it will be over 16 m higher than the current tower.

**1.2. Important conditions for using the environment at the stage of execution and operation or use of the project, with particular emphasis on the need to protect valuable natural values, natural resources and monuments, as well as the limitation of nuisance to neighbouring areas:**

1. Trees within the project area that are not to be removed shall be protected from mechanical or chemical damage as follows:
  - a) the tree trunks should be wrapped with wicker or straw mats or jute fabric and then planked with boards with a minimum height of 1.5 - 2.0 m (depending on the height of the tree), without the use of nails, and care should be taken to ensure that the boards do not rest on the root necks but on the ground,
  - b) excavation work in the root zone of trees should be done manually or with micro-excavators,
  - c) in the case of approaching the root zones of trees by excavation works, it is necessary to ensure the possibility of water and mineral salt intake by roots and access to air,
  - d) root pruning should be carried out with sharp cutting tools, tearing and crushing of root systems is not allowed, and skeletal roots, which are responsible for the statics of the tree, should not be damaged,
  - e) in the case of damage to roots, branches or trunks, protective measures should be taken: damaged roots should be cut at a right angle, cutting where the live root starts; only fresh wounds should be tended, in the case of tangential wounds, tending is limited to levelling the wound edge with a sharp tool, in the case of transverse wounds the branch should be cut "on the ring", the wounds should not be treated with impregnations and various preparations, including fungicides
  - f) leaving roots uncovered should not last longer than 2 hours, but leaving roots in the sun should not last longer than 1 hour, the exception is leaving them in the air on wet days - not longer than 8 hours; to protect roots from drying out, use moist peat, mats or jute fabrics, which should be regularly moistened with water, similarly in winter, exposed roots should be protected against frost with mats, blankets or a layer of peat covered with boards
  - g) material and equipment bases (warehouses, storages, transport bases), excavated material and waste generated during construction works should not be located within the range of the vertical projection of tree crowns and at least 2 m outside this range, especially storage of cement, lime and rubble near trees should be avoided

- h) tree trunks shall not be filled with soil above a height of 0.2 m above the original ground level, and shrubs shall not be filled above a height of 0.1 m above the original ground level
  - i) tree protection elements shall be dismantled upon completion of the works.
2. Use organizational and technical solutions to minimize secondary dust emissions from construction and installation sites and means of transport carrying dusty materials, in particular by:
    - a) securing loose, dusty materials which are raw materials for the construction site, as well as earth masses and waste of the same nature which arise during the construction work, against their dispersal (e.g. by covering them with tarpaulins, spraying with water - in the case of earth masses),
    - b) cleaning the wheels of vehicles before leaving the construction site for public roads.
  3. The site facilities, parking areas for machinery and equipment and storage areas for construction materials should be hardened and organised in a manner that ensures protection of the ground and water environment from contamination with petroleum products.
  4. The technical condition of construction machinery and means of transport shall be regularly checked by the Contractor to eliminate ground contamination due to possible leakage of pollutants.
  5. the area should not be contaminated with chemical substances that may penetrate water; places where substances hazardous to water are stored should be protected with insulating materials. The construction site should be equipped with means to neutralize potential emergency spills of fuels, oils, or other chemical substances (sorbents, e.g. polypropylene cotton wool, sorption sheets).
  6. In emergency situations (e.g. fuel or oil spill), immediate actions should be taken to prevent the penetration of pollutants into surface and underground waters (e.g. by neutralizing the spill with appropriate sorbents), the causes and effects of the accident should be removed immediately.
  7. Fuel for the genset shall be stored in a bunded tank with corrosion protection. The tank should be placed on a catch sump with a capacity to receive the entire tank contents.
  8. Construction site facilities should be equipped with portable toilets. Domestic sewage generated during the execution of the project should be transferred to entities holding permits required by law for its collection.
  9. Domestic wastewater generated at the stage of exploitation of the project should be discharged to a sump, the contents of which should be handed over to entities holding the legally required permits for their collection.
  10. Waste generated during the execution and operation of the project should be stored selectively in designated places and in a manner protecting the soil and water environment from possible contamination. The waste should be successively handed over to the entities holding the legally required permits for waste management.

**1.3. Environmental protection requirements necessary to include in the documentation required for the issuance of the decision, referred to in Art. 72 par. 1 of EIA:**

1. Install adequate radar lighting to make the tower visible to passing birds to minimize the risk of birds crashing into the subject facility.
2. Paint the radar station building in shades of gray and green to reduce the visibility of the installation in the landscape.

**1.4. Requirements to prevent the effects of industrial accidents, in relation to projects classified as establishments posing a threat of major accidents within the meaning of the Act of 27 April 2001. - Environmental Protection Law:**

The project is not classified as a facility posing a threat of serious industrial accidents.

**1.5. Requirements for mitigation of transboundary environmental impacts for projects for which a transboundary environmental impact study has been conducted:**

No transboundary environmental impact of the project has been identified due to the significant distance from the State Border.

- II. **I do not impose the obligation to conduct a renewed environmental impact assessment as part of the proceedings on the issuance of the decision referred to in Art. 72 par. 1 of EIA.**
- III. **The characteristics of the planned project are included in "Attachment No. 1" to this decision.**

### **J u s t i f i c a t i o n**

Letter dated April 22, 2021 (date of receipt: 4 May 2021) Mr. Marcin Walter, acting under the authority of the Investor, i.e. the Institute of Meteorology and Water Management - National Research Institute, Podleśna St. 61, 01-673 Warsaw, applied for the issuance of the decision on environmental conditions for the undertaking named: **"Demolition of the existing radar tower and construction of a new meteorological radar on plot of land no. 63, Brzuchania precinct, Miechów commune, miechowski powiat, małopolskie voivodeship"**.

The investment project in question qualifies as a project which may potentially significantly affect the environment, for which an environmental impact assessment may be required, in accordance with **§ 2 Section 1 Item 7 letter d** - *"radio-communication, radio-navigation and radio-location installations, excluding radio-links, emitting electromagnetic fields at frequencies from 0.03 MHz to 300 000 MHz, in which the equivalent isotropic radiated power determined for a single antenna is not less than 20 000 W - but the equivalent isotropic radiated power is determined for a single antenna also in the case if on the same plant or facility another radio communication, radio navigational or radiolocation installation is being or has been realized"* of the Regulation of the Council of Ministers of September 10, 2019. on projects that may significantly affect the environment (Journal of Laws of 2019, item 1839).

The circle of parties to the proceedings was adopted in accordance with the borders of the area of execution and impact of the investment. As the parties to the proceedings were also recognized the owners of land plots/entities, which have the right in rem to the properties located in the area of the investment impact, i.e. within the distance of 100 m from the border of the planned project. On the basis of submitted maps and extracts from the land register it was determined that the number of parties to the proceedings exceeds 10. Due to the above, in accordance with Art. 74 par. 3 of EIA, in these proceedings the provision of Art. 49 of CAP on notifying the parties by public notice applies.

In the course of the proceedings, the required documents listed in Art. 74 par. 1 of EIA were attached to the application. Stamp duty was paid for the decision on environmental conditions and the granted power of attorney.

The planned investment is executed in accordance with the Act of 8 July 2010 on the special principles of preparation and execution of investments in the field of flood control structures (Journal of Laws of 2021, item 1812).

The project in question is a public purpose investment within the meaning of the Act of August 21, 1997 on real estate management ( Journal of Laws of 2021, item 1899, as amended).

The body competent to issue the decision on environmental conditions is the Regional Director for Environmental Protection in accordance with Art. 75 par. 1 section 1 letter i) of EIA.

Due to formal deficiencies of the application, the Regional Director for Environmental Protection requested the application to be supplemented in his letter OO.420.4.5.2021.AMi of 27 May 2021.

The Investor's Plenipotentiary supplemented the application for formal defects in a letter dated 30 June 2021 and a letter dated 15 July 2021.

In the letter dated 20 July 2021, OO.420.4.5.2021.AMi, the Regional Director for Environmental Protection in Kraków notified the parties on commencement of the proceedings. Due to the fact that the number of parties to the proceedings exceeds 10, pursuant to Art. 74 par. 3 of EIA, the provision of Art. 49 of CAP. was applied, notifying the parties by public notice. The notices were effectively posted on the bulletin board of RDEP in Kraków and on its website (PIB), as well as sent for posting in a customary way to the Town and Commune Office in Miechów. In addition, the information on the initiation of the proceedings was placed on the publicly available data list on the website of the Center for Environmental Information. Additionally, the content of the notification stated that in accordance with Art. 49 § 1, the parties will be notified about subsequent stages of the proceedings by publishing the letters in the Public Information Bulletin (PIB) of RDEP in Kraków.

Subsequently, in the letter dated 22 July 2021, OO.420.4.5.2021.AMi, the Regional Director for Environmental Protection in Kraków asked the Małopolski State Voivodeship Sanitary Inspector for issuing an opinion on the aforementioned project.

In the letter dated 22 July 2021, with the sign: OO.420.4.5.2021.AMi, the Director of the Regional Water Management Board in Krakow, the State Water Management Company Polish Waterways, was asked to agree on the conditions for the execution of the aforementioned project.

The Małopolski State Voivodeship Sanitary Inspector gave a positive opinion for the said project in terms of hygienic and health requirements in the letter: NS.9022.7.19.2021 dated 25 August 2021.

In a letter dated August 26, 2021, ref: KR.RZŚ.4360.51.2021.AP, the Director of the Regional Water Management Board in Krakow of the State Water Management Company Polish Waterways applied to the Regional Director of Environmental Protection in Krakow to request the Investor to provide clarifications to the extent presented in the letter. The Regional Director for Environmental Protection in Kraków requested the Plenipotentiary to supplement this information in a letter dated August 31, 2021 and signed OO.420.4.5.2021.AMi.

The Investor's Plenipotentiary submitted supplementation to the information presented in the report by letter dated September 2, 2021, which was sent to the Director of Regional Water Management Board in Kraków, State Water Management Company Polish Waterways in a letter dated September 7, 2021, ref: OO.420.4.5.2021.AMi.

By decision dated 8 September 2021 ref: KR.RZŚ.4360.51.2021.AP, the Director of the Regional Water Management Board in Kraków of the State Water Management Company Polish Waterways agreed to the implementation of the undertaking entitled: "Demolition of the existing radar tower and construction of a new meteorological radar on plot of land no. 63, precinct Brzuchania, Miechów commune, miechowski powiat, małopolskie voivodeship" and determined the conditions of using the environment at the stage of implementation and exploitation of the aforementioned undertaking taking into account the necessity of protection of underground and surface waters.

The Investor's Proxy, in a letter dated October 29, 2021, sent information about changing the value of the radar operating frequency indicated in the submitted documents from frequency: 5 650 MHz to the frequency: 5 645 MHz.

In connection with the information sent, the Regional Director for Environmental Protection in Kraków asked the Małopolski State Voivodship Sanitary Inspector for a statement on whether the opinion of the following sign: NS.9022.7.19.2021 dated 25 August 2021 is sustained.

The Małopolski State Voivodship Sanitary Inspector in a letter dated 23 November 2021, mark: NS.9022.7.19.2021, sustained his position included in the sanitary opinion of 25 August 2021, mark: NS.9022.7.19.2021.

In accordance with Art. 80 par. 2 of EIA the statement of the compliance of the project's location with the provisions of the local spatial development plan does not apply to the investments implemented under the Act of 8 July 2010 on special principles of preparation and execution of investments in the scope of flood control structures (Journal of Laws of 2021, item 1812, c.t.).

### **DESCRIPTION OF THE PROJECT TO BE UNDERTAKEN**

The subject matter of the project is the replacement of the radar with a new one, of higher power and dual-polarization measurement functionality as well as the construction of a new radar tower in order to raise the antenna of meteorological radar Brzuchania on a parcel of land no. 63, Brzuchania precinct, Miechów commune, Miechów powiat, Małopolskie voivodship. The meteorological radar is and will be used for the purposes of the national hydrological and meteorological service of the Institute of Meteorology and Water Management (IMGW-PIB). The area of the investment project is approx. 0.091 ha and includes an area which is and will remain mostly fenced off in connection with the existing radar station and the implementation of the investment project.

The purpose of replacing the radar equipment and the radar tower, and thus raising the antenna, is to increase precision in monitoring the state of the atmosphere in terms of meteorological phenomena, and at the same time to avoid blocking the radar beam by tree crowns, which is currently the case.

POLRAD meteorological radar network allows observing processes occurring in the atmosphere with a very high spatial and temporal resolution. Doppler radars operating in the network monitor the state of the atmosphere in real time. Apart from determining the areas covered by precipitation, the radars analyze the phenomena occurring in localized

meteorological objects (e.g. clouds), their scale and determine the direction of movement of precipitation structures. The "radar signal" reflected from meteorological objects is the information from a large number of hydrometeors (water particles: rain, snow, hail, cloud droplets), which is converted in the system into many products (e.g. forecasts): meteorological, hydrological, wind, dangerous phenomena, prognostic. From the information collected by all the radars a collective radar map is created.

### **VARIANTS ANALYSED**

The alternative variant of the project includes the construction of a radar tower with a separate technical building and gas heating of rooms in the tower and the adjacent building.

The II variant provides for the use of gas heaters for heating the building, instead of electric heaters. This will involve additional works correlated with the construction of infrastructure. It is also necessary to make additional safeguards in case of failure of the heating system and to install liquid gas tanks, which is connected with additional safeguards and technical requirements of the object. Moreover, the change of heating to LPG would result in emission of pollutants in the form of nitrogen oxides (NOx), sulphur dioxide (SO<sub>2</sub>) and carbon monoxide (CO). Therefore, the environmental impact of variant II would be more significant in terms of air emissions. Implementation of the project in the alternative variant will also result in occupation of a larger area on the selected parcel.

After the analysis of environmental impact of the project, taking into account the social need of the project, while maintaining the minimizing measures, no significant negative impact of variant I is expected. With the use of high quality equipment and technological solutions minimizing emissions, the investment variant is the most beneficial for the environment.

The investor did not consider another variant of location, because the radar will be installed in the area where such an installation has been functioning so far. Moreover, locating the radar in the same place, higher and with a greater range, allows to achieve the greatest possible range of scanning, getting rid of interference through the crowns of the surrounding trees.

### **DESCRIPTION OF THE EXISTING STATE**

The site is currently occupied by a radar installation that will be demolished. The plot is free of trees, but is surrounded on three sides (E, N and W) by beech forest. On the southern side, the plot is bordered by DK 7 (E 77). On its eastern side, the adjacent plot is used for agriculture, as a hay meadow. On the other side of the DK 7 there is land used for agriculture - arable land.

Currently, the existing access road and parking area of about 425 m<sup>2</sup> will be used during the construction works related to the dismantling of the old and construction of the new radar tower.

After the completion of these works, the existing access road and parking lot will be dismantled and disposed of.

### **GEOLOGICAL STRUCTURE**

Geologically and structurally, the area is located in the western part of the Nida Basin. The Nida Basin is a north-west-southeast syncline. Its formation and shape are related to post-Cretaceous Laramidean movements of the Alpine orogenesis. The basin is filled with sandy-carbonate sediments of the Lower Cretaceous (Albian, Cenomanian, Turonian) and carbonate sediments of the Upper Cretaceous (Cognac, Santonian, Campanian, Mastrichtian).

The Miechów area is located within two smaller structural units: Garb Wodzisławski in the north and Miechów Upland in the south. The boundary between them is the Kamionka - Książ Mały fault zone.

### **HYDROGRAPHY AND HYDROLOGY**

There are no watercourses or water reservoirs in the project area and its close vicinity. Exploitation of the project will not have a negative impact on soil and water environment.

### **SOIL COVERAGE**

The Miechów Commune is an area of intensive agricultural development, being a rich base for agricultural and food processing. There are high quality soils with the most favorable agro-ecological conditions, with a predominance of wheat and beetroot complexes, loesses and chalky rendzina.

Agriculture is a characteristic feature of the region. Arable land covers over 13 thousand hectares, which accounts for over 89% of the commune's area.

The area of the planned investment is located on the border between forests and arable land. The investment will be implemented on land of quality class RIIIa.

### **IMPACT ON LANDSCAPE VALUES**

The project is located within the area of the Miechowska Upland Landscape Protection Area. Resolution No. XVII/230/20 of the Mayoral Council of the Małopolskie Voivodeship of 27 January 2020 on the Miechowska Upland Protected Landscape Area is currently in force. The area was established in 1995 and covers 51 010.10 ha. It is an area of great value in terms of landscape, nature, and culture. It was established in order to protect the natural values, especially the flora and animals occurring here. They play an important role in the densely populated and developed agricultural landscape.

Implementation of the meteorological radar is a public purpose investment, therefore it is excluded from the catalog of bans binding in the Miechowska Upland Protected Landscape Area.

The project is located on the border of agricultural and forest areas, and is also adjacent to a national road.

No permanent relief transformation is expected in the area of the planned project. Any changes to the relief will be reversible.

The radar will be well visible from a distance (several dozen - several hundred meters). The location of the elevated radar tower will allow the object to be seen from further away (several kilometers). The radar tower visibility estimate was determined based on similar height objects taking into account local morphological conditions.



At the same time, it was recommended that the radar tower should be appropriately painted to blend in with the landscape, and at the same time to reduce the potential danger of birds colliding with such a tall object.

The existing meteorological radar object is already an object inscribed in the landscape, as it exists and functions in an unchanged form until 2004. Demolition and construction of a new tower in its place will not significantly affect the landscape values of the surrounding area.

### **HISTORIC BUILDINGS AND ARCHAEOLOGICAL SITES AND ADAPTATION TO CLIMATE CHANGE**

According to the report, the project will not have a significant impact on climate change and will not pose a threat to areas of historical, cultural or archaeological significance. Due to climate change and increasing extreme weather phenomena, the radar through monitoring of atmospheric phenomena will serve as an early warning against these phenomena, among others.

### **NON-IONIZING RADIATION, ELECTROMAGNETIC FIELDS**

Due to the scope of the project no impact on non-ionizing radiation is expected.

The main factor that may affect the environment will be the emission of electromagnetic field. Forecasted intensity of electromagnetic field exceeding the permissible values for the frequency of radar operation (10 W/m<sup>2</sup>) will occur only in free space inaccessible to the public. The area of above-normative impact extends very narrowly (shallowly within the range of several centimeters in the "thickest" place) at the height of the antenna center (51 m above the ground level of the tower base). The contour of the area of above-normal impact of electromagnetic field will be within a radius of approximately 59 m from the axis of the tower.

The nearest low-rise residential buildings are located at a distance of about 400 m from the radar. As it results from the documentation, the limit of levels safe for humans will be confirmed by monitoring tests after the execution of the investment, which the Investor declared to perform.

### **ATMOSPHERIC AIR**

At the construction stage there will be mainly unorganized emission. Construction works will involve disassembly of the existing tower, preparation of the site for the construction of the radar as well as the construction of the tower and will be associated with the installation of a number of devices and objects necessary for the operation of the facility. Emission of pollutants occurring during construction, due to its limited duration, will not have a significant impact on the cleanliness of the atmosphere. Also its magnitude will not contribute to deterioration of atmospheric air quality in the areas adjacent to the planned project. Emission of pollutants expected during the construction phase will be short-term, local, unorganized, and reversible. All impacts in this respect will cease after completion of the construction works.

The source of emissions to air at the operation stage will be the genset, which will be turned on during power failures or test activations during technical inspections (once every 6 months for 1 hour). Therefore, emissions to air will occur sporadically, temporarily, and will be of short-term, unorganized, and local character. The air conditioning equipment will be equipped with cooling agents not depleting the ozone layer. Calculations of air concentrations

of emitted substances (nitric oxides NO<sub>x</sub>, carbon monoxide, sulphur dioxide, hydrocarbons VOC) have shown that during normal operation of the installation there will not occur and there are no predicted exceedences of admissible levels of substances and binding reference values in the air at any point outside the project area, thus there will be no impact on deterioration of atmospheric air quality in the areas adjacent to the planned investment.

No significant negative impact of the investment on the state of atmospheric air is expected.

### **ACOUSTIC CLIMATE**

Increased noise levels in the environment will occur during

- construction works using mechanical equipment,
- increased traffic of vehicles transporting the necessary equipment and materials,
- operation of mechanical equipment during construction works.

The emission of noise and vibration generated during the operation of construction equipment will be of short-term, local, spatially limited character and will cease after the completion of construction works.

The project will generate noise emissions through:

- noise of air conditioning equipment,
- noise of the radar antenna drive motor,
- noise of the power generator (during power failure and test runs once every 6 months for 1 hour).

The project will not be a source of abnormal noise to the environment and will not cause any significant or permanent changes in the environment, in particular in its elements such as acoustic climate. The nearest farmsteads and single-family houses are located approximately 400 m south of the radar tower.

The project will not have a significant negative impact in terms of noise emission during the operation phase.

### **CUMULATIVE IMPACTS**

Cumulative impacts do not occur.

### **WATER AND SEWAGE MANAGEMENT**

In the course of ground investigation in the place of the planned investment, boreholes were made to the depth of 8 and 15 m below the surface. The foundation of the tower was designed on a foundation slab, under which the ground will be reinforced with concrete columns to the depth of the rocky subsoil (marl).

The foundation of the tower slab has been designed at a depth of 2.08 m below sea level, while the soil reinforcement has been designed at a level of approximately 4.00 m above sea level.

Water for household needs will be supplied from a drilled well and possibly from a connection to the communal water supply system (in case of its implementation in the commune). Water will be drawn from the deep well, in which the aquifer is located at the depth of 28 m below the surface. The maximum intake from the well is specified as 1.00 m<sup>3</sup>/d. The designed well will not exceed 30 m depth and water intake of 5.00 m<sup>3</sup>/d. Approximately

6 visits per year by a two-person maintenance crew are anticipated. Water at the implementation stage will be drawn from the above-mentioned well, which will be constructed at the first stage of construction.

At the implementation stage, domestic sewage will be discharged to portable toilets, the contents of which will be transferred to authorized entities. At the stage of exploitation, employees coming for service visits will use social rooms, toilets and bathrooms. Social and domestic wastewater will be collected in a sealed, non-returnable tank with a capacity of 10 m<sup>3</sup>, and then transported by slurry trucks to the local treatment plant. Rainwater or snowmelt from the investment surface will be discharged to the ground.

The project is planned in the catchment area of the surface water body SWB Nidzica do Nidki, code: PLRW200072139816 and within the groundwater body with code PLGW2000114. According to the Vistula River Basin Management Plan (Regulation of the Council of Ministers of 18 October 2016 on the Vistula River Basin Management Plan ( Journal of Laws 2016, item 1911, as amended):

- SBW Nidzica do Nidki is a heavily modified water body with the environmental objective: good ecological potential and good chemical status. It is a water body in poor general status, at risk of not achieving the environmental objectives, for which a derogation was granted due to the lack of technical feasibility and disproportionate costs. Due to the low reliability of the assessment and the consequent lack of possibility to indicate the reasons for failure to achieve good status, it is not possible to plan reasonable corrective measures. Planning and implementation of any measures will generate unreasonable costs. Therefore, in SWB an action is planned to identify the actual ecological status - to conduct research monitoring.
- GBW 114 is a groundwater body with the environmental target of maintaining good quantitative status and good chemical status. It is a water body in good quantitative status and good chemical status, not threatened with failure to achieve the environmental objectives.

With regard to protected areas within the meaning of Article 16(32) of the Act of 20 July 2017. Water Law (including: water bodies intended for water abstraction for the purposes of supplying the population with water intended for human consumption, water bodies intended for recreational purposes, including bathing, areas sensitive to eutrophication caused by pollution from municipal sources, areas intended for the protection of habitats or species referred to in the provisions of the Act of 16 April 2004 The project is planned outside the areas where a water body intended for intake of water for human consumption and an area sensitive to eutrophication caused by pollution from municipal sources (which covers the entire country) have been designated.)

The project is planned outside the areas of intermediate protection zones of water intakes and outside the area of special flood hazard within the meaning of Article 16 point 34 of the Water Law Act. The investment is located within the boundaries of the Main Underground Water Reservoir (MUWR) no. 409: Niecka Miechowska.

Due to the type, characteristics and location of the planned investment, the negative impact of the project on the possibility of achieving environmental objectives for surface water bodies, groundwater bodies and protected areas mentioned in article 57, article 59 and article 61 of the Water Law Act is not expected.

## **WASTE MANAGEMENT**

At the stage of the project implementation hazardous waste of code: 13 02 05\* , 15 02 02\* and 16 06 02\* will be stored in tightly closed containers. Non-hazardous waste will be stored in containers or bags. All waste will be stored on hardened pavement in the project area and will be transferred to authorized entities for recovery or disposal. In the case of waste code 17 05 04 "Soil and ground, including stones, other than those mentioned in 17 05 03\*" it will be stored next to the excavation and will be used within the investment area.

At the project operation stage, only municipal waste associated with maintenance visits will be generated. The waste will be stored and handed over to an authorized entity.

The decommissioning phase, similarly to the construction phase, may last approximately 3 months. During the decommissioning phase, the tower and its internal and external components will be successively dismantled and taken off-site. Removal or management of waste generated during demolition of the existing tower, construction of the new one and from the social and equipment base will be the responsibility of the company performing the construction and assembly/disassembly works. Due to the nature of the project, these will be the companies performing the individual works.

### **NATURAL WORLD**

The area adjacent to the plot of land currently occupied by the Brzuchania radar station, and at the same time the site of the tower reconstruction and radar equipment upgrade, is occupied by: - from the N, W and NE sides - upland fresh beech forest of about 82 years of age - plots No. 349 and 71 (forest address 03-14-1-03-82-c-00) and No. 356 (forest address 03-14-1-03-89-b-00), close to natural, moisture content - strongly fresh, on rainflat soils, - On the SW side, on the other side of the national road no. 7, there is a fresh upland beech forest, aged about 82 years, located in plots no. 357 (forest address 03-14-1-03-89-d-00) and 356 (forest address 03-14-1-03-89-b-00), close to natural state, with strongly fresh moisture content, on post-oil-soil soils

- from S side - national road DK 7 (E 77), crossing the buffer of the plot of land 63 from S to N

- from the S side, behind the DK 7 - arable fields, intensively used,

- from E side - plot no. 64, grassland, currently used extensively.

The flora of the forest is typical for fresh upland beech forest. Apart from the dominant beech (*Fagus sylvatica*), there are few bearded birch (*Betula pendula*) and pedunculate oak (*Quercus robur*).

No valuable or protected natural habitats or plant species were found within Lot 63 or the 100 m buffer surveyed. Plant species characteristic of fresh upland forest and agricultural fields were dominant.

The bird fauna of the site is characteristic of the grasslands and forests surrounding the study area. No birds were observed in the area of the radar station and the future investment project, but only single flying individuals (e.g., common godwit (*Parus major*), raven (*Corvus corax*), jay (*Garrulus glandarius*), magpie (*Pica pica*), chaffinch (*Fringilla coelebs*)). These observed species are not associated with nesting in the fenced area of Lot 63, which may only provide potential foraging habitat. No species listed on the Red List of birds of Europe were observed.

The potential herpetofauna of the study area is poor, typical and comparable to surrounding areas. No breeding or feeding grounds for amphibians or reptiles were observed within the

plot no. 63 and in the 100 m buffer surrounding the plot. Potentially, grass frog (*Rana temporaria*) and common toad (*Bufo bufo*) may occur in this area.

No invertebrates were observed in the study area during the site visit.

Impacts to biodiversity and habitats will be very low, apart from a possible increase in potential bird collisions with the obstacle of an approximately 16 metre taller radar tower. Environmental interference during construction will also be low.

The meteorological radar tower upgrade does not require cutting of any trees or shrubs. The planned fence will remain small in size and will not disrupt migration routes or reduce foraging habitat for birds and amphibians. It only excludes a small portion of the site from foraging habitat for mammals, which will not be able to pass through. In the area of the plot no. 63 Brzuchania, there is the DK 7 road with intensive vehicle traffic, currently estimated at approximately 17,000 vehicles per day. This road and the intensive traffic there are elements that have a strong negative impact on the environment and constitute a significant migration barrier.

The project will be implemented outside the designated Natura 2000 special protection areas and will not affect them. The closest Natura 2000 site located approximately 3 km from the planned project is Widnica PLH120076.

The analysis shows that taking into account the size of the project, the distance to the Natura 2000 border and the results of acoustic analyses as well as air emission analyses (presented in details in the previous chapters), no significant negative impact on protected areas (including Natura 2000 areas) is expected.

The emission of radiation will occur at the height of the antenna itself, so it will be above the tree crown and thus there will be no impact on feeding or nesting birds or other animals. Therefore, no negative impact on nesting birds is expected in the project area, only collisions of birds with the tall structure are possible.

Adequate lighting of the radar tower will make the tower sufficiently visible to passing birds to minimize the risk of birds crashing into the structure. Because it is a single structure occupying a small area, it is assumed that it will not have a negative impact on migrating or feeding birds in the area.

## **PARTIES' APPLICATIONS AND PUBLIC PARTICIPATION**

The planned project, as it will always have an impact on the environment, requires an EIA, including public participation. In accordance with Art. 33 par. 1, in connection with Art. 79 par. 1 of UUOŚ, in order to ensure the public participation in the proceedings, the announcement of the Regional Director for Environmental Protection in Kraków, 00.420.4.5.2021.AMi of 7 September 2021 was posted on the notice board and on the website of Regional Director for Environmental Protection in Kraków, as well as on the notice board of the Town and Commune Office in Miechów, informing among others about the initiation of the environmental impact assessment for the project in question, about the body competent to issue a decision, the body competent to issue an opinion and the body competent to issue a decision reconciling the conditions of the project's execution, about the possibility of reading the documentation of the case and the possibility of submitting comments and applications in the said case within the period from September 9, 2021 to October 8, 2021. The announcement was posted on notice boards of the Regional Directorate for Environmental Protection in Kraków and the Town and Commune Office in Miechów, as well as in the Public Information Bulletin on the website of the Regional Directorate for Environmental Protection in Kraków.

No public comments or applications were submitted to RDEP in Kraków during the public participation period.

In the letter: 00.420.4.5.2021.AMi of 14 October 2021 The Regional Director for Environmental Protection in Kraków notified the parties on completion of the evidence proceedings for issuing this decision and on the possibility to review and comment on the collected evidence within 7 days from the date of notification delivery. The notification was effectively posted on the RDEP notice board in Kraków, as well as in the Public Information Bulletin on the website of the Regional Directorate for Environmental Protection in Kraków. Due to additional information provided by the Investor's Plenipotentiary in a letter dated 28 October 2021 and a letter from the Małopolska State Regional Sanitary Inspector No. NS.9022.7.19.2021 dated 23 November 2021 about sustaining opinion No. NS.9022.7.19.2021 dated 25 August 2021 The Regional Director for Environmental Protection in Kraków, in a letter (00.420.4.5.2021.AMi of 3 December 2021), once again notified the parties on completion of evidence proceedings concerning issuance of the said decision and on the possibility to review and comment on collected evidence within 7 days from delivery of the notification. The notification was effectively posted on the RDEP notice board in Krakow, as well as in the Public Information Bulletin on the website of the Regional Directorate for Environmental Protection in Kraków.

According to Art. 135 par. 1 of the Act of April 27, 2001. Environmental Protection Law (Journal of Laws from 2021, item 1973 as amended), the exploitation of the planned project does not require the establishment of a limited use area. According to the aforementioned law, such an area may be created for the radio-communication, radio-navigation and radio-location installation, if the proceedings on environmental impact assessment, post-execution analysis or ecological review indicate that despite the applied technical, technological and organizational solutions, the environmental quality standards outside the area of such an object cannot be met.

As calculations of electromagnetic field distribution have shown, the values of average power density higher or equal to 10 W/m<sup>2</sup> will occur in free space and in places inaccessible to the public, therefore creation of a limited use area is not planned.

This decision does not set out the requirements in terms of preventing the effects of industrial accidents, as the operation of the project in question is not classified as a plant "at increased risk" of failure or a plant "at high risk" of failure, as defined in Art. 248 of the Environmental Protection Act.

This decision does not set requirements as regards the limitation of the transboundary impact on the environment, as no risk of impact beyond the borders of the Republic of Poland was identified due to a significant distance from the state borders and the nature of the project.

The analysis of the submitted application and the report on the environmental impact of the project indicates that the project will not cause excessive nuisance to the environment if the conditions included in this decision are fulfilled.

In view of the above, it was ruled as per the operative part.

## I n s t r u c t i o n

This decision may be appealed against by the General Director for Environmental Protection in Warsaw (Wawelska 52/54, 00-022 Warsaw), through the Regional Director for Environmental Protection in Krakow ( Mogilska 25, 31-542 Krakow), within 14 days of its delivery.

This decision may be appealed against to the public administration body which issued the decision. As of the date of delivery to the public administration body of the statement on the waiver of the right to appeal by the last party to the proceedings, the decision becomes final and legally binding.



Regionalny  
Dyrektor Ochrony Środowiska  
w Krakowie  
mgr Rafał [Signature]

### Recipients:

1. Mr. Marcin Walter - Proxy of the Investor,
2. other parties to the proceedings notified pursuant to Article 49 of the Code of Administrative Procedure,
3. the Malopolska State Voivodship Sanitary Inspectorate, 76 Prądnicka St., 31-202 Krakow (ePUAP),
4. the Director of the Regional Water Management Board in Kraków of the State Water Management Company Polish Waterways, 22 Marszałka J. Piłsudskiego Street, 31-109 Kraków (ePUAP),
5. OO. AMi a/a.

### ADMINISTRATOR'S INFORMATION ON THE PROCESSING OF PERSONAL DATA

*In connection with the application, as of 25 May 2018, of Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC ( hereinafter RODO), we inform you that:*

*1/ the controller of your personal data is the Regional Director for Environmental Protection with its seat in Kraków, Mogilska 25 Street, 31-542 Kraków*

*2/ Your personal data will be processed by the Regional Directorate for Environmental Protection in Krakow for the purpose of administrative/court-administrative proceedings, in accordance with Article 6(1)(c) of the RODO.*

*Providing your personal data is voluntary but necessary to comply with a legal obligation to examine the case.*

*3/ Your data may be disclosed by the Regional Director for Environmental Protection in Krakow to entities authorized to obtain information under generally applicable legal regulations.*

*4/ Your personal data will be stored for the period required by law.*

*5/ You have the right to access your personal data, as well as the right to rectify them, limit their processing and the right to data portability.*

*6/ in connection with the processing of your personal data, you have the right to lodge a complaint to the President of the Office for Personal Data Protection.*

*7/ contact details of the Data Protection Inspector: e-mail address: [iod.krakow@rdos.aov.pl](mailto:iod.krakow@rdos.aov.pl) postal address: ul, Mogilska 25, 31-542 Kraków.*



**REGIONAL DIRECTOR  
FOR ENVIRONMENTAL PROTECTION  
IN KRAKÓW**

**Attachment no. 1** to decision  
sign: OO.420.4.5.2021.Ami  
from January 21, 2022

**PROJECT CHARACTERISTICS**

The project entitled "Demolition of the existing radar tower and construction of a new meteorological radar on a plot of land no. 63, Brzuchania precinct, Miechów Commune, miechowski powiat, małopolskie voivodeship", will consist of demolition of the existing radar tower and construction of a new meteorological radar.

As part of the investment, a new access road and a parking lot with an area of approximately 425 m<sup>2</sup> will be constructed. The remaining part of the property will be grassed over. As part of the investment, the existing fence mesh (approx. 150 m) will be replaced with a new one. Within the investment area it is planned: to build a radar station, to construct a parking lot with the possibility of parking 3 cars at the same time, to construct a non-reflux tank with sewage connection, to construct a drilled well with the diameter of about 150 mm and water supply connection with a pump, tank, control equipment and other equipment necessary to provide water in bathrooms and toilets. The planned radar tower will be made of reinforced concrete structure. The height of the tower from the base to the center of the installed radar antenna will be 51 meters, and to the top will be 54.35 meters. The maximum dynamic deviation from vertical at the height of 51 meters will not exceed 0.1 degree. The radar tower will be topped with a dome to protect the radar antenna system. A radar room will be located directly under the tower's finial. A service platform with barriers is planned around the dome. The width of the platform will be at least 120 cm and will allow for works related to the supervision and maintenance of the dome. At the height of the radar room, a service platform (other than the one described above) of at least 120 cm in width is planned around the tower with barriers and an opening gate (130 cm high), enabling the transportation of goods to the radar room. Two independent communication systems are planned - an elevator inside the tower for service purposes to the radar room or directly under the room, and a flight of stairs inside the tower for communication to the service rooms. The radar room will house the radar system equipment, among others, industrial cabinets containing automation equipment. The area of the room will not be less than 40 m<sup>2</sup>. The ground floor area will contain, among others, a toilet, a UPS room, a generator room, a utility room, a storage room and a separate room for a 1000 l tank of fuel for the generator. In order to minimize the possibility of soil contamination by petroleum compounds, the fuel tank will be bunded with anti-corrosion protection and will be protected with a drainless sump capable of accepting the entire contents of the tank and will be located inside the building. If the tank leaks and fuel enters the sump, a specialist company will be called to pump out the contents from the sump, the tank will be replaced, and if there is no contamination, the fuel will be pumped into a new



tank. If the fuel is contaminated, it will be transferred to a specialized company for disposal. The room will also contain a sorbent container for use in the event of a fuel spill during tank refueling. After the implementation of the project the total area occupied by paved surfaces will be about 0.05 ha, and green areas will occupy an area of about 0.04 ha. The development area (roofs) will be approx. 0.01 ha. Electricity for the investment will be supplied under a contract with the power company. The radar will be connected to the existing power grid. Additionally, the facility will be equipped with a power generator and an emergency UPS power supply of 10 KW - in case of power supply failure. During the operation of the project, 2 air conditioners will be installed for heating and cooling of the rooms.

The radar antenna is the proper and only source of electromagnetic field emission in the analyzed installation. It is a parabolic metal mirror with a diameter of 4.1 m. In the focal point of the paraboloid, which is the reflector, there is placed the proper antenna powered by the signal from the transmitter. Thanks to this construction, the antenna directs the emission in the direction to which the antenna reflector is directed. The table below gives a tabular summary of the parameters and emission characteristics.

Tab.1

Antenna type	Parabolic reflector
Antenna gain	GA +45 dBi
Attenuation contributed by the antenna's sheath	Aosł = 0,5 dB
Main beam width of the antenna radiation pattern (at the power density pot level, i.e. - 3 dB)	$\Theta A < 1^\circ$ - circular beam
Direction of main beam in azimuth plane	$0^\circ \dots 360^\circ$ - full rotation
Direction of main beam in elevation	plane emission in horizontal direction was considered as environmentally relevant
Wave frequency	5645 MHz
Transmitter peak impulse power (PEP)	400 kW
Attenuation of feeder path to antenna	Atoru = 1,5 dB
Pulse length	in range from 0,33 $\mu$ s to 3,3 $\mu$ s
Pulse repetition rate (PRF = 1/T)	in range from 250 Hz to 2000 Hz
Total average power output from the transmitter taking into account the average array of emitted pulses	pAV = 2,64 kW = $^{+34,2}$ dBW
average EIRP power of the signal	436,5 kW

Regionalny  
Dyrektor Ochrony Środowiska  
w Krakowie  
mgr Rafał [Signature]