

Attachment 1

Projects for the construction and reconstruction of water facilities in order to, i.a., increase retention and support the prevention of the effects of drought, selected from the Polish Waters Planned Investments Program planned for the years 2021-2027 with a perspective until 2030 (as of 2020)

No.	River Basin Area	Stream	Project's Name	Project's Scope	Planned/estimated retention [thousand/m <sup>3</sup> ]	The entity responsible for the implementation of the project	Voivodeship	Schedule		Justification of the project according to the criterion of the risk of drought in the WR
								Planned start date of the project [commencement of works]	Planned Completion Date of the project	
1	Vistula	Augustow Canal	Development of the project and renovation of the weir on the Augustów barrage at km 32 + 500 of the Augustów Canal	1. Development of the project documentation with necessary administrative decisions, 2. Reconstruction and renovation of the weir — replacement of damper mechanisms, renovation of concrete structures (walls of the weir), replacement of protective barriers.	no data	Białystok RWMB	Podlaskie	2021	2023	moderate risk of drought
2	Vistula	Pisa	Construction of a barrage in Pisiz on the Pisa River with technical facilities as part of the Pisiz-Warsaw waterway	Development of design documentation and the construction of: a weir, a fish ladder, a lock, a SHP station on the Pisa River and technical facilities enabling the technical maintenance of the barrage and waterway structures. The construction of the barrage will help stabilise the water level in the Rós Lake and support the levels and flows of water in the Pisa River during the summer low flows, supporting navigation.	no data	Białystok RWMB	Warmińsko-Mazurskie	2022	2025	moderate risk of drought
3	Pregolya	Lyna	Construction of a reservoir on the Mala Lyna River at km (approx.) 2 + 550 - 3 + 900, Dobre Miasto Comm., Warmińsko-Mazurskie Voivodeship	1. Development of technical documentation, 2. Construction of a reservoir with impounding structures.	225 000	Białystok RWMB	Warmińsko-Mazurskie	2022	2026	moderate risk of drought
4	Vistula	Skroda	Construction of weirs on the Skroda River at km 12 + 961 in Zabele and km 16 + 313 in Janowo	1. Development of technical documentation, 2. Construction of a reservoir with impounding structures.	no data	Białystok RWMB	Podlaskie	2021	2021	moderate risk of drought
5	Vistula	Gruda	Reconstruction of the weir on the Gruda River at km 3 + 000, Gąsówka Somachy District, Lapy Comm., including breach repair	1. Development of the project's documentation, 2. Reconstruction of the weir.	no data	Białystok RWMB	Podlaskie	2022	2023	moderate risk of drought
6	Vistula	Struga Lepacka	Improvement of the retention capacity in the catchment of the Struga Lepacka River by the reconstruction of weirs, gates and impounding culverts in Lomża district	1. Development of the project's documentation with necessary administrative decisions/permits, 2. Construction of weirs at km 0 + 350 in Szabłak, km 2 + 300 in Mątwica, Nowogród commune and gates at km 8 + 000 in Stare Kupiski, reconstruction of the gates present at km 6 + 890 and km 14 + 987 in Sierzputy Młode and the construction of an impounding culvert at km 15 + 989 in Sierzputy Młode, Lomża commune, Lomża district.	no data	Białystok RWMB	Podlaskie	2022	2024	moderate risk of drought
7	Vistula	Piasecznica	Improvement of the retention capacity in the catchment of the Piasecznica River by the reconstruction of weirs and impounding culverts in Ostrołęka district	1. Development of project's documentation with necessary administrative decisions/permits, 2. Reconstruction of gates at km 9 + 680 and 10 + 420 in Łódziska, Lelis Comm., km 21 + 320 in Kuczyńskie, km 22 + 150 and 23 + 370 in Strzałki, km 24 + 690, 25 + 850, 27 + 810 and 29 + 340 in Piasecznica, Kadzisz Comm., and km 34 + 720 and 36 + 430 in Olczyń, Myszyńiec Comm., Ostrołęka district.	no data	Białystok RWMB	Mazowieckie	2022	2024	moderate risk of drought
8	Vistula	Jablonka	Improvement of the retention capacity in the catchment of the Jablonka River by the reconstruction of weirs in the districts of Zambrów and Lomża	1. Development of project's documentation with necessary administrative decisions/permits, 2. Reconstruction of weirs on the Jablonka River at km 1 + 730 in Milewo, Lomża Comm., and at km 2 + 700 in Poręty Jabloni, Zambrów Comm.	no data	Białystok RWMB	Podlaskie	2022	2022	moderate risk of drought
9	Vistula	Rozoga, Stare Czajki	Improvement of the retention capacity in the catchment of the Rozoga and Stare Czajki Rivers by the reconstruction of weirs and impounding culverts in Szczytno district	1. Development of project's documentation with necessary administrative decisions/permits, 2. Reconstruction of weirs on the Rozoga River at km 64 + 075 in Gawkujeiki, Szczytno Comm., and at km 56 + 870 in Konrady, Rozoga Comm., and impounding culverts at km 65 + 400 in Gawkujeiki, Szczytno Comm., and km 66 + 200 in Jeruty, Świętajno Comm., as well as the reconstruction of the weir on the Stare Czajki River at km 1 + 000 in Konrady, Świętajno Comm.	no data	Białystok RWMB	Warmińsko-Mazurskie	2022	2024	moderate risk of drought
10	Odra	Lobzonka	Reconstruction of the Klaweck weir	1. Deconstruction of the existing hydrotechnical structure, 2. Construction of a weir integrated with the bridge, 3. Construction of a fish ladder, 4. Reconstruction of a section of a district road, 5. Reconstruction of the water supply network and telecommunications infrastructure.	1	Bydgoszcz RWMB	Wielkopolskie	2018	2025	high risk of drought
11	Odra	Zawada Canal	Reconstruction of the Zawada Canal	1. Reconstruction of the Zawada Canal, 2. Maintenance works including strengthening the slopes with natural materials, 3. Restoration of gates, 4. Replacing the culvert with a new one.	5	Bydgoszcz RWMB	Wielkopolskie	2022	2023	high risk of drought
12	Odra	Biała Struga	Regulation of the Biała Struga River from km 1+700 to km 9+170	1. Construction of culverts with stoplogs, 2. Strengthening the riverbed and the slopes located up and down from the structures.	5	Bydgoszcz RWMB	Kujawsko-Pomorskie	2020	2021	high risk of drought
13	Odra	Glomia	Stabilisation of the water level of the Miejskie Lake	Construction of an overflow with permanent damming and a fish ladder.	70	Bydgoszcz RWMB	Wielkopolskie	2021	2021	high risk of drought
14	Odra	Struga Jezucka	Stabilisation of the water level of the Jezuckie Lake	1. Construction of a damming structure, 2. Construction of a fish ladder.	440	Bydgoszcz RWMB	Kujawsko-Pomorskie	2023	2027	high risk of drought
15	Odra	Kocynka	Shaping the long and cross profiles of the Kocynka River - stage II from km 21 + 302 to km 33 + 962	1. Shaping the long and cross profiles of the river. 2. Construction of culverts with gates. 3. Construction of culverts.	8	Bydgoszcz RWMB	Kujawsko-Pomorskie	2017	2022	high risk of drought
16	Odra	Mala Noteć, Ostrowo-Goplo Canal	Reconstruction of water resources in the lakes of the Oniezo Lake district - facilities within the competence of the Regional Water Management Board in Bydgoszcz	1. Construction of impounding structures at the outflow of the lakes. 2. Construction of fish ladders. 3. Construction of dams across watercourses to reduce water runoff.	ok. 5 000	Bydgoszcz RWMB	Wielkopolskie, Kujawsko-Pomorskie	2023	2027	high risk of drought
17	Odra	Gulczanka	Reconstruction of the Gulczanka River from 00+000 to 19+100 (20+270)	1. Reconstruction of the river bed, 2. Construction of a passable weir in place of the existing one. 3. Reconstruction and renovation of stoplogs (5 pcs.). 4. Construction of dams to reduce water runoff.	260	Bydgoszcz RWMB	Wielkopolskie	2022	2023	high risk of drought
18	Odra	Miała	Construction of the Piłka water reservoir	Construction of a water reservoir.	1 510	RZGW Bydgoszcz	Wielkopolskie	2023	2026	high risk of drought
19	Odra	Młynówka Mirosławska river (Korytnica river)	Stabilisation of the water level of the Gniewosk Lake by reconstructing the gate with a fish ladder in the form of a riffle at km 3 + 900 of the Młynówka Mirosławska River	Reconstruction of the damming structure in order to increase retention capacity and protect against drought, as well as ensure the continuity of the Młynówka Mirosławska River by making a fish ladder (development of design documentation).	20	Bydgoszcz RWMB	Zachodniopomorskie	2021	2021	high risk of drought
20	Vistula	Elbląg Canal	Reconstruction of the Miłomłyn weir on the Elbląg Canal	Reconstruction of the weir. The detailed scope of the task will be possible to define after the technical documentation is prepared.	no data	Gdańsk RWMB	Warmińsko-Mazurskie	2022	2023	moderate risk of drought
21	Vistula	Drwęca	Reconstruction of the weir in Samborów on the Drwęca River with a portaging for kayaks	Reconstruction of the weir. The detailed scope of the task will be possible to define after the technical documentation is prepared.	no data	Gdańsk RWMB	Warmińsko-Mazurskie	2021	2023	moderate risk of drought
22	Vistula	Brzuchówka	Reconstruction of the Brzuchówka watercourse from km 0 + 000 to km 3 + 500 with stabilisation of the water level in the Mala Cerkwica Lake	1. Shaping the riverbed including strengthening the banks and building gaps in the slope, 2. Stabilisation of the water level in the Mala Cerkwica Lake (via the construction of a dam).	3 500	Gdańsk RWMB	Pomorskie	2022	2022	moderate risk of drought
23	Vistula	Korbajna	Flood protection of the town of Miłomłyn. Shaping the long and cross profiles of the Korbajna River at km 0 + 000 - 7 + 600; 8 + 550 - 8 + 744, Miłomłyn Commune.	1. Development of documentation, 2. Stabilisation (retention) of the Korbajna Lake and damming the Jaskówkiew Lake, 3. Shaping the Korbajna watercourse at km 0 + 000 - 7 + 600 and km 8 + 550 - 8 + 744.	Retention capacity of the Jaskówkiew Lake - 475,7.	Gdańsk RWMB	Warmińsko-Mazurskie	2022	2023	moderate risk of drought
24	Vistula	Tynwald, Łabędzia Struga, Iławka	Flood protection of the town of Iława. The Tynwald River at km 0 + 000 - 3 + 780; 8 + 515 - 11 + 293; the Łabędzia Struga River at km 0 + 000 - 1 + 942, Iława Comm.	1. Development of documentation, 2. Stabilisation (retention) of the Łabędzia Lake by changing the flow direction to the Łabędzia Struga River 3. Damming the Tynwald Lake 4. Shaping the Tynwald River at km 0 + 000 - 3 + 780 and km 8 + 515 - 11 + 293 and the Łabędzia Struga River at km 0 + 000 - 1 + 942.	Retention capacity: Łabędzi Lake - 537,8, Tynwald Lake - 104,8.	Gdańsk RWMB	Warmińsko-Mazurskie	2022	2023	moderate risk of drought
25	Vistula	Tażyna, Tażyna Mala,	Rehabilitation of the Tażyna River by recreating a small water retention in the area of operation of the Association of Municipalities of the Kujawy Region in Aleksandrów Kujawski.	1. Development of project's documentation with the necessary administrative decisions, 2. Modernisation of the existing damming structures with retention reservoirs, 3. Restoration of the river to enable migration of protected species, i.e. lamprey.	no data	Gdańsk RWMB	Kujawsko-Pomorskie	2022	2025	moderate risk of drought
26	Vistula	Struga Mniszek	Reconstruction of the Struga Mniszek watercourse from km 2 + 050 to km 6 + 800, Dragacz commune, Świecie district, Kujawsko-Pomorskie Voivodeship	The reconstruction will help to achieve the rational water management on agricultural land; construction of devices will reduce water runoff during the growing season and water shortages, as well as will increase its retention (in the ground and the watercourse). The reconstruction of the Struga River will help achieve the investment's goal, i.e. improve flood protection and reduce risk of flooding agricultural land by allowing the discharge of excess waters from the area of the valley protected by the flood embankment; improve the living conditions of the inhabitants of rural areas by improving soil productivity due to the stabilisation of water and air soil conditions in the area affected by the watercourse, as well as enable rational water management on agricultural land; construction of devices will reduce water runoff during the growing season and water shortages, as well as will increase its retention (in the ground and the watercourse). The possibility of achieving the investment's objective and the measures planned to limit its impact on the natural environment and to compensate for possible losses speak for the adoption of this variant of the investment being the most optimal.	no data	Gdańsk RWMB	Kujawsko-Pomorskie	2022	2025	moderate risk of drought

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No.	River Basin Area	Stream	Project's Name	Project's Scope	Planned/estimated retention [thousand/m <sup>3</sup> ]	The entity responsible for the implementation of the project	Voivodeship	Schedule		Justification of the project according to the criterion of the risk of drought in the WR
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27	Vistula	Wierzyca	Reconstruction of the dam on the Krag Lake, Stara Kiszewa Comm.	Reconstruction of the structure stabilising the water level in the Krag Lake. The existing structure is in a bad technical condition due to the loss of its stability.	325	Gdańsk RWMB	Pomorskie	2021	2023	moderate risk of drought
28	Vistula	Lutyna	Construction of a water reservoir on the Lutyna River, km 13 + 300 - 18 + 000, Jabłonowo Pomorskie Comm.	Development of a technical and economic analysis and an expert opinion on the environmental impact of the construction of a water reservoir of approx. 170 ha, average depth 2.2 m, maximum depth 3.5 m and maximum length 4.5 km.	no data	Gdańsk RWMB	Pomorskie	2021	2023	moderate risk of drought
29	Vistula	Srebrny Potok	Regulation of the Srebrny Potok River at km 0+000 - 12+167 in Elbląg Milejewo Comm., Warmińsko-Mazurskie Voivodeship	1. Water stream regulation. 2. Construction of two retention reservoirs (an upper reservoir and a lower reservoir). 3. Reconstruction of a power grid.	137,1	Gdańsk RWMB	Warmińsko-Mazurskie	2019	2024	moderate risk of drought
30	Vistula	Dębica	Reservoir on the Dębica stream in Elbląg	1. Adaptation of the overflow structure so that it adheres to normative specifications by removing damaged fragments of the concrete structure of its bottom and the walls of the cascade and reinforcing those parts with concrete. 2. Deconstruction of the reservoir's bottom outlet. 3. Construction of a partition in the reinforced concrete parts with a slot regulating the amount of water outflow from the reservoir. 4. Alignment of the variable dam chamber and reconstruction of the access road.	74,258	Gdańsk RWMB	Warmińsko-Mazurskie	2020	2022	moderate risk of drought
31	Vistula	Struga Gołubska, Wiercica, Trzebiocha, Struga Niedamnowo, Stara Rzeka, Dłużnica	Maintaining the biodiversity of water ecosystems in the Kaszuby Lake district and Bory Tucholskie through the reconstruction of small water retention devices	1. Construction of stoplogs. 2. Strengthening the bottom of the watercourse in front of, and behind, the stoplogs.	2 235	Gdańsk RWMB	Pomorskie	2020	2021	moderate risk of drought
32	Odra	Kłodnica	Renovation and reconstruction of the slopes and devices of the Dzierżno Duże water reservoir, which serves as a flood control defense of the Kłodnica Valley and is the main source of water for the Gliwice Canal	1. Development of a technical inventory of the reservoir, a renovation concept with the analysis of its variants and environmental impact. 2. Development of the Feasibility Study. 3. Development of project's documentation. 4. Execution of construction works, mainly the concrete repairs of the reservoir weir (Przewał Kłodnicki), the reclamation of the slopes of the reservoir in order to raise the dam height, and the repair of the screen of concrete slabs on the upstream side.	89 330	Gliwice RWMB	Śląskie	2021	2030	moderate risk of drought
33	Vistula	Starowiejski	Development of the anti-flood project for the Starowiejski watercourse	Development of an analysis of the possibility of using the so-called catchment retention (a possible construction of a small retention system in the Starowiejski watercourse catchment area), indication of critical points along the length of the watercourse, and enabling the free flow of flood waters.	no data	Gliwice RWMB	Śląskie	2021	2022	moderate risk of drought
34	Odra	Bierawka	Kotłarnia, an anti-flood reservoir on the Bierawka River	The investment requires the construction of the following structures: 1. A water inlet structure from the Bierawka river to the B reservoir. 2. An intermediate damming structure in the B reservoir. 3. An outlet structure draining water from the A reservoir. 4. The bowls and slopes of the A and B reservoirs. 5. Access roads to the reservoir's hydrotechnical facilities. 6 Reservoirs' operational facilities provided with a control system and automatic management. 7. Technical infrastructure.	Total capacity 40 580	Gliwice RWMB	Opolskie	2023	2026	moderate risk of drought
35	Odra	Odra	Construction of a flap gate weir on the Ujście Nysy barrage at km 180.50 of the Odra River, with accompanying infrastructure	The scope of the project includes: the deconstruction of the needle weir, preserving the historic fish ladder, side overflow and pillar, the construction of a flap gate weir with a hydraulic drive and an automatic control system, the construction of a fish ladder for DIDRIONOUS fish, the construction of a communication footbridge, and the reconstruction of the buildings of the barrage housing estate, distribution dam, and the banks of the Odra river near the weir, as well as the reinforcements of the river bottom below the weir, access roads, and energy and telecommunication facilities.	no data	Gliwice RWMB	Opolskie	2020	2023	moderate risk of drought
36	Vistula	Nida with its tributaries	Sustainable economic development of the Nida River catchment area in connection with Natura 2000 sites - Stage 1	Stage 1: Task 1: Restoration of the valley retention of the Nida River valley in Korytnica, Task 2: Increasing the valley retention of the Nida River between Rębów and Motkowice. Task 3: Increasing the valley retention of the Nida River in the vicinity of Kolonia Parcela, Task 4: Increasing the surface and ground retention in Umińnowice, Task 5: Increasing the valley retention of the Nida River in the vicinity of Mikrosko Górne, Task 6: Restoring the continuity of the ecological corridor of the Nida River and its tributaries - unblocking migration barriers for aquatic organisms in the Nida and Brzeźnica Rivers. Task 7: Restoring the continuity of the ecological corridor of the Mierzawa River - unblocking migration barriers for aquatic organisms in the Mierzawa River, Task 8: Fragmentary deconstruction of the right-bank flood embankments in the vicinity of Pińczów towards Michałow. Task 9: Revitalisation of the oxbow lake of the Nida River in Brzeźno. Task 10: Revitalisation of the Pińczów reservoir and the oxbow lakes of the Nida River in the area of the Pińczów sewage treatment plant. Task 11: Ecological restoration of the inland delta of the Nida River.	no data	Kraków RWMB	Świętokrzyskie	2021	2024	moderate risk of drought
37	Vistula	Vistula	Counteracting the effects of drought in the section of the Vistula River valley between the Przewóz barrage and the Raba River estuary - construction of the Niepolomice barrage	Construction of the Niepolomice barrage - implementation of the 1st stage - development of the Feasibility Study.	no data	Kraków RWMB	Małopolskie	2020	2021	moderate risk of drought
38	Vistula	Lososina	Construction of the Wierna Rzeka water reservoir in the Lopuzno, Piekosów and Strawczyn Comm.	Construction of the Wierna Rzeka water reservoir - the area of the designed reservoir is 72 ha, the total capacity is 1010, the total flood reserve is 720, and the dam height is 4.45 m. The main functions of the reservoir are primarily: retention, protection against the effects of drought and water shortages, and flood protection by ensuring a permanent flood reserve, flattening the flood wave and securing the areas below it from flooding. The entire scope of the investment includes updating the design documentation prepared in 2011, with all necessary administrative decisions, the development of a Feasibility Study, which will indicate the current possibilities for the implementation of the investment and clarify the functions of the reservoir and the scale of its impact, as well as implementation on the basis of the updated documentation of construction works, performance of investor's supervision and payment of compensation/redemption for real estate occupied as necessary for the implementation of the investment. In 2020, it is planned to start work on the up-to-date design documentation, and the planned completion date of the contract is 2022. The investment in question has been included in a planning document of strategic importance, i.e. the Regulation of the Council of Ministers of 18th October 2016 on the adoption of the Flood Risk Management Plan for the Vistula river basin area (Journal of Laws 2016, Item 1841) - list of strategic activities, investment ID 76043, and in the Regulation of the Council of Ministers of 18th October 2016 on the 2nd Vistula river Basin Management Plan (Journal of Laws of 2016, Item 1911) - investment's ID 2_137_W.)	1 080	Kraków RWMB	Świętokrzyskie	2021	2027	moderate risk of drought
39	Vistula	Brenka	Construction of the Żelazków reservoir at km 18 + 259 of the Brenka River	Construction of a multifunctional reservoir on the Brenka River (according to the MHDP, the Bren River at km 43 + 950). The Żelazków reservoir will have the following parameters: - Total capacity: 252 200 m <sup>3</sup> , - Flood protection capacity: 115 500 m <sup>3</sup> , - Equalizing capacity: 136 700 m <sup>3</sup> , - Nominal level: 198.00 m above sea level, - Max level: 198.90 m above sea level, - Reservoir area at nominal level: 10.8 ha, - Dam height at nominal level: 4.0 m, - Main dam length: 206 m, - Catchment area enclosed within the dam profile: 29.3 km <sup>2</sup> .	252	Kraków RWMB	Małopolskie	2024	2025	moderate risk of drought
40	Vistula	Bystrzyca	Revitalisation and reconstruction of the Zemborzycki reservoir	Implementation of a concept of works regarding the reconstruction of hydrotechnical devices, desludging the reservoir's bowl along with the improvement of its ecological condition by constructing a preliminary reservoir as both a separator and settling tank, and clearing the Bystrzyca river.	6 120	Lublin RWMB	Lubelskie	2022	2026	high risk of drought

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41	Vistula	Artificial catchment KW-K (Wieprz - Krzna)	Reconstruction and sealing of the Wieprz - Krzna Canal along with its structures at km 11 + 000 - 76 + 000, 76 + 000 - 139 + 890	1. Reconstruction and sealing of the Wieprz - Krzna Canal with its structures, 2. Adaptation of the canal to serve the transit function in order to provide the necessary amount of water for the irrigation of grasslands, 3. Improving and increasing the amount of available water supplied to drainage facilities, fish ponds and for the restoration of valuable peatland and water ecosystems, while maintaining ecological and landscape requirements, 4. Reducing unproductive water losses by limiting infiltration through the KW-K Canal through its complete sealing.	116 000 thousand m <sup>3</sup> as a relief channel for the entire capacity of the facility	Lublin RWMB	Lubelskie	2022	2027	high risk of drought
42	Vistula	Reservoir of the system of KW-K/Zielawa	Reconstruction of the Mosty stopbank and reservoir structure - Stage 2 - reconstruction of the stopbank at km 0 + 000 - 2 + 080 and 5 + 270 - 8 + 040, as well as the reservoir's bowl, object 3; desludging of the reservoir's area of 385 ha, Podędwórze Comm.	Deepening of the reservoir's bowl.	6 900	Lublin RWMB	Lubelskie	2022	2027	high risk of drought
43	Vistula	Reservoir of the system of KW-K	Renovation and extension of the Drałów reservoir in the Wieprz - Krzna Canal system, Łęczna Comm., Łęczyski district, Object 2 - the Drałów reservoir's stopbank at km 0 + 000-2 + 137	1. Dredging of the bottom of the reservoir, 2. Renovation and reconstruction of the water slope of the reservoir's stopbank.	4 270	Lublin RWMB	Lubelskie	2022	2027	high risk of drought
44	Vistula	Reservoir of the system of KW-K	Renovation and extension of the Drałów reservoir in the Wieprz - Krzna Canal system, Łęczna Comm., Łęczyski district, Object 3 - the Drałów reservoir's stopbank at km 2 + 137 - 3 + 340	1. Dredging of the bottom of the reservoir, 2. Renovation and reconstruction of the water slope of the reservoir's stopbank.	4 270	Lublin RWMB	Lubelskie	2022	2027	high risk of drought
45	Vistula	Nurzec	Extension of the existing reservoir in Ciecchanowiec at km 15 + 300 of the Nurzec River, Wysokomszowiecki district, Podlaskie Voivodeship	Extension of the existing reservoir of an area of approx. 7 ha and capacity of 140 thousand m <sup>3</sup> as a flow-through reservoir on the Nurzec River.	140	Lublin RWMB	Podlaskie	2022	2025	high risk of drought
46	Vistula	Reservoir of the system of KW-K	Reconstruction of the Opole reservoir's stopbank and bowl, Podędwórze and Jabłoń Comm., Parczew district and Wisznice Comm., Biała Podlaska district	Reconstruction of a stopbank to the length of 8.8 km and the bowl of the Opole reservoir, which has an area of 282 ha with a total capacity of 4.8 million m <sup>3</sup> , as well as 7 structures and 5.71 km of perimeter drainage ditches. The reconstruction of this reservoir will increase its total capacity. Increased water retention will mitigate the effects of drought in the area of the Wieprz - Krzna Canal, meet water needs for agricultural irrigation and protect valuable natural ecosystems, develop agriculture and agri-food industry, fishing and tourism, as well as create appropriate living and working conditions for the inhabitants of this area.	4 800	Lublin RWMB	Lubelskie	2022	2027	high risk of drought
47	Vistula	Reservoir of the system of KW-K	Reconstruction and sealing of the Żelazna stopbank and reservoir, Drałów Comm., Biała Podlaska district, and Komarówka Comm., Radzyń Podlaski district	The reconstruction of the reservoir with its structures will increase water retention capacity and the number/capacity of available water resources for agricultural irrigation in the Wieprz - Krzna Canal system of the area of approx. 5 000 ha while maintaining the environmental requirements in NATURA 2000 areas. The project assumes: the reconstruction of the reservoir's bowl, stopbank and structures of the area of 349.0 ha, the enlargement of the reservoir's bowl by two additional chambers with a total area of approx. 60 ha of additional capacity, the sealing and protection of the bottom and slopes of the reservoir, the reconstruction and construction of inlet and outlet structures, the reconstruction and construction of circular ditches, as well as the hardening of the reservoir's stopbank's crown for communication and exploitation purposes.	6 900	Lublin RWMB	Lubelskie	2023	2027	high risk of drought
48	Vistula	Krzna Pd.	Szaniawy - agricultural land drainage, Trzbieiszów Comm., Łukowski district - Stage 1	The purpose of the planned water melioration devices is to regulate the water conditions in order to improve the productive capacity of the soil, to facilitate its cultivation and to create optimal conditions for agricultural production. The investment includes the reconstruction and modernisation of the existing network of ditches and the main reservoir (Krzna Pd.) over a length of 24,164 km, the task of which will be to drain surface water from the area of permanent grasslands. The section of the river and the buildings and devices located on it, qualified for basic drainage, will be renovated according to technical parameters required to function as receivers. This applies to the Krzna Pd. on the section directly related to the planned investment and just below the outlet of the K main ditch.	no data	Lublin RWMB	Lubelskie	2021	2027	high risk of drought
49	Vistula	reservoir of the system of KW-K/Zielawa	Reconstruction of the Mosty stopbank and reservoir structure - Stage 2; reconstruction of the stopbank at km 0 + 000 - 2 + 080 and 5 + 270 - 8 + 040 and the reservoir's bowl; object 1, reconstruction of the reservoir's stopbank and bowl at km 0 + 000 - 2 + 080, Podędwórze Comm.	The project includes the reconstruction of the stopbank and the reservoir structure at km 0 + 000 - 2 + 080 at the length of 2 080 m, including the sealing and strengthening of the stopbank from the upstream side, the deconstruction of relief structure No. 2 at 0 + 695 km, the reconstruction of reinforcements including the replacement of locks and mechanisms on the weir at km 0 + 000 on the Zahajki - Mosty sewer, and the construction of a discharge pipeline. The reconstruction of this reservoir will increase its total capacity. Increased water retention will mitigate the effects of drought in the area of the Wieprz - Krzna Canal, meet water needs for agricultural irrigation and protect valuable natural ecosystems, develop agriculture and agri-food industry, fishing and tourism, as well as create appropriate living and working conditions for the inhabitants of this area.	6 900	Lublin RWMB	Lubelskie	2022	2027	high risk of drought
50	Vistula	Reservoir of the system of KW-K/Zielawa	Reconstruction of the Mosty stopbank and reservoir structure - Stage 2; reconstruction of the stopbank at km 0 + 000 - 2 + 080 and 5 + 270 - 8 + 040 and the reservoir's bowl; object 2, reconstruction of the reservoir's stopbank and bowl at km 5 + 270 - 8 + 040, Podędwórze Comm.	The project includes the reconstruction of the stopbank and the reservoir structure at km 5 + 270 - 8 + 040 at the length of 2 770 m, including the sealing and strengthening of the stopbank from the upstream side, as well as the deconstruction of the relief structure No. 5 at km 5 + 800. The reconstruction of this reservoir will increase its total capacity. Increased water retention will mitigate the effects of drought in the area of the Wieprz - Krzna Canal, meet water needs for agricultural irrigation and protect valuable natural ecosystems, develop agriculture and agri-food industry, fishing and tourism, as well as create appropriate living and working conditions for the inhabitants of this area.	6 900	Lublin RWMB	Lubelskie	2022	2027	high risk of drought
51	Odra	Moskawa	Reconstruction of the weir on the Moskawa River at km 5 + 523 in Czarnotki	Reconstruction of a weir.	not applicable	Poznań RWMB	Wielkopolskie	2022	2022	high risk of drought
52	Odra	Miłostawski Canal	Reconstruction of the Miłostawski Canal with embankments - Stage 1, Zanienyśl Comm., Środa Wielkopolska	1. Reconstruction of the Miłostawski Canal, 2. Reconstruction of 9 weirs, 3. Reconstruction of the flood embankment of the Miłostawski Canal.	not applicable	Poznań RWMB	Wielkopolskie	2024	2028	high risk of drought
53	Odra	Sama, Galowski Canal (Sama)	Reconstruction of the Sama River	1. Reconstruction of the Sama River and the Galowski Canal, 2. Modernisation and construction of new hydrotechnical structures, including the construction of a pond in the Jan III Sobieski Municipal Park in Szamotyły, 3. Construction of 9 small retention facilities.	no data	Poznań RWMB	Wielkopolskie	2022	2024	high risk of drought
54	Odra	Struga Golaniecka, Wąpno-Laskowicka Canal (Struga Golaniecka)	Laskowicka reservoir, Golańcz Comm.	1. Construction of a reservoir with a front dam, 2. Construction of an overflow and drainage structure for the dam, 3. Construction of a fish ladder, 4. Reconstruction of the Struga Golaniecka riverbed.	2 591 thousand m <sup>3</sup> (NPP)	Poznań RWMB	Wielkopolskie	2022	2025	high risk of drought
55	Odra	Męcina	Tulce reservoir, Kleszczewo Comm., Poznań district	Construction of a reservoir.	100 thousand m <sup>3</sup> (NPP)	Poznań RWMB	Wielkopolskie	2020	2022	high risk of drought
56	Odra	Moskawa	Środa reservoir on the Moskawa River	Środa reservoir - modernisation of the upper section of the Moskawa River's tributary to the reservoir, including preliminary cleaning and the reconstruction of damming devices.	900	Poznań RWMB	Wielkopolskie	2023	2024	high risk of drought
57	Odra	Drozdów A Canal	Construction of the Dzierżawy-Drozdów reservoir (Drozdów A Canal), Świnice Warckie and Wartkowie Comm., Łęczyska, Poddębicki districts	Construction of the Dzierżawy-Drozdów reservoir	930	Poznań RWMB	Łódzkie	2023	2028	high risk of drought
58	Odra	Proсна	Wielowieś Kłazstorna reservoir on the Proсна River	Construction of a reservoir.	48 800	Poznań RWMB	Wielkopolskie	2023	2028	high risk of drought
59	Odra	Trojanówka	Sarny small retention reservoir (Trojanówka River) Błaszki Comm., Sieradz district	Construction of the Sarny small retention reservoir	3 075	Poznań RWMB	Łódzkie	2023	2028	high risk of drought
60	Vistula	Pogwizdówka	Increasing the water retention capacity in the Pogwizdówka watercourse valley in Pogwizdów, Medynia Lancucka, Medynia Głogowska, Czarna Comm., Podkarpackie Voivodeship	Shaping the riverbed taking into account its natural course. A local transformation of the riverbed into a two-part riverbed in order to slow down the runoff and keep water in local ponds.	20	Rzeszów RWMB	Podkarpackie	2023	2024	moderate risk of drought
61	Vistula	Wisłoka	Construction of the Kąty - Myscowa reservoir	Reservoir parameters: the dam is about 607 m long and up to 43.4 m high, the estimated area of the reservoir is 427 ha and its total capacity is approx. 65.5 million m <sup>3</sup> . The technical parameters of the reservoir will help the retention of approx. 19.5 million m <sup>3</sup> of flood waters, and, in the period of low flows, will guarantee an environmental flow for a period of 6 months.	65 500	Rzeszów RWMB	Podkarpackie	2023	2027	moderate risk of drought

Attachment 1

Projects for the construction and reconstruction of water facilities in order to, i.a., increase retention and support the prevention of the effects of drought, selected from the Polish Waters Planned Investments Program planned for the years 2021-2027 with a perspective until 2030 (as of 2020)

No.	River Basin Area	Stream	Project's Name	Project's Scope	Planned/estimated retention [thousand/m <sup>3</sup> ]	The entity responsible for the implementation of the project	Voivodeship	Schedule		Justification of the project according to the criterion of the risk of drought in the WR
								Planned start date of the project [commencement of works]	Planned Completion Date of the project	
62	Odra	-	Drainage of rainwater and snowmelt from the Bukowa River catchment with the flood protection of the Dobra, Kolbaszów and Szczecin Communes located in the Bukowa river catchment area.	1. Development of technical documentation for the sectional reconstruction of the riverbed including the construction of a relief channel and the construction or modernisation of small retention reservoirs. 2. Construction of small retention reservoirs.	30	Szczecin RWMB	Zachodniopomorskie	2022	2027	moderate risk of drought
63	Odra	Rega	A structure regulating the flow of the Rega River water on the section Kłodkowo - Gablin - Valley retention	1. Construction of the hydrotechnical structures, including an earth dam with relief devices. 2. Construction of 1 main reservoir with the possibility of using an impounding structure for energy purposes.	1 800	Szczecin RWMB	Zachodniopomorskie	2022	2027	moderate risk of drought
64	Odra	Unięsta, Polnica	Retention in the catchment area of the Unięsta and Polnica Rivers	Reconstruction of three barrages, weirs, dams and gates.	no data	Szczecin RWMB	Zachodniopomorskie	2022	2023	moderate risk of drought
65	Odra	Kielpino Lake	Stabilisation of the water level in the Kielpino Lake	The investment includes rebuilding the water damming device stabilising the water level of the lake at the outflow of the Gesia River, which is in poor technical condition. The water damming parameters are not expected to change.	no data	Szczecin RWMB	Zachodniopomorskie	2022	2022	moderate risk of drought
66	Odra	1. Promień (Warmickie) Lake 2. Ostrowieckie Lake 3. Długie Lake 4. Dłużyna (Dolgie) Lake 5. Wętyńskie Lake 6. Borzymskie Lake 7. Miejskie Lake 8. Kiaszotne Lake 9. Mieszakotne Lake 10. Renickie Lake 11. Jeleńskie Lake 12. Rurzyca River 13. Tywa River	Increasing lake and river retention in the Water Region of the Lower Odra	1. Development of technical documentation, 2. Implementation of works increasing lake retention capacity by stabilizing water levels in lakes through the reconstruction of damming structures, increasing the potential watercourses' retention capacity, and restoring their hydrobiological continuity by building fish ladders.	no data	Szczecin RWMB	Zachodniopomorskie	2021	2027	moderate risk of drought
67	Odra	1. Morzycko Lake 2. Koszusiński Lake 3. Koscielne Lake 4. Korotywo Lake 5. Raduń Lake 6. Cegnowo Lake 7. Trzygłowski Drugie Lake 8. Stuchowska Struga River 9. Flonia River	Increasing lake and river retention in the Zachodniopomorskie Voivodeship - Stage 1	1. Implementation of works increasing river and lake retention capacity. 2. Restoration of the hydrobiological continuity of watercourses by improving the existing damming structures so that they fulfill requirements of environmentally friendly structures. 3. Planned activities include the modernisation of the existing facilities and the construction of new ones in the form of a rapids - pool or dams with rapids. The planned dams will not exceed 1.0 m. All planned activities will take into account the need for fish migration and will help to create favourable living conditions for migratory fish.	no data	Szczecin RWMB	Zachodniopomorskie	2020	2021	moderate risk of drought
68	Odra	1. Łabędzie Bagno 2. Ina River 3. Radew River	Increasing lake and river retention in the Zachodniopomorskie Voivodeship - Stage 2	1. Implementation of works increasing river and lake retention capacity. 2. Restoration of the hydrobiological continuity of watercourses by improving the existing damming structures so that they fulfill requirements of environmentally friendly structures. 3. Planned activities include the modernisation of the existing facilities and the construction of new ones in the form of a rapids - pool or dams with rapids. The planned dams will not exceed 1.0 m. All planned activities will take into account the need for fish migration and will help to create favourable living conditions for migratory fish.	680 tys. m <sup>3</sup> - Łabędzie Bagno	Szczecin RWMB	Zachodniopomorskie	2020	2027	moderate risk of drought
69	Vistula	Mława	Reconstruction of the Ruda water reservoir, Lipowiec Kościelny Comm., Mława district and Iłowo-Osada Comm., Dziadowa district, Warmińsko-Mazurskie voivodeship	1. Temporary emptying of the water reservoir, 2. Reconstruction of the existing reinforcement of the upstream slope and the renovation of the siltlogs and flaps of relief devices, 3. Renovation of the reinforced concrete structure of the outlet damming tower, abutments of relief elements and other devices, 4. Desludging of the reservoir's bottom, 5. Construction of a fish ladder, 6. Repair of the groyne structure and communication lanes.	761	Warsaw RWMB	Mazowieckie, Warmińsko-Mazurskie	2020	2022	high risk of drought
70	Vistula	Pilica	Renovation of the Sulejów reservoir	1. Development of an assessment of the technical condition with the determination of the scope of works necessary to be performed on the facilities of the Sulejów reservoir in order to improve the technical condition of the facility and adapt it to the currently applicable regulations, including the construction of a fish ladder and the desludging of the reservoir's bowl. 2. Development of the construction design based on the assessment of the technical condition, and obtaining all decisions necessary for the execution of works. 3. Implementation of works related to the desludging of the reservoir bowl. 4. Performance of works related to the renovation/modernisation of the facilities of the Sulejów reservoir.	no data	Warsaw RWMB	Łódzkie	2020	2025	high risk of drought
71	Odra	Odra	Construction of the Lubiąż barrage on the Odra River near Gliński village	1. Development of technical documentation for the construction of a water barrage on the Odra River with the necessary administrative decisions, 2. Construction of the Lubiąż barrage.	not applicable	Wrocław RWMB	Dolnośląskie	after securing funds	5 years from the start of work	high risk of drought
72	Odra	Odra	Construction of the Ścinawa barrage on the Odra River	1. Development of technical documentation for the construction of a water barrage on the Odra river with the necessary administrative decisions, 2. Construction of the Ścinawa barrage.	not applicable	Wrocław RWMB	Dolnośląskie	after securing funds	5 years from the start of work	high risk of drought
73	Odra	Dąbrocznia	Construction of the Miejska Górka reservoir	Extension of the retention reservoir from the capacity of 346 thousand m <sup>3</sup> up to 778 thousand m <sup>3</sup> , as well as the flood protection reserve from 75.2 thousand m <sup>3</sup> up to 294.6 thousand m <sup>3</sup> , and the regulation and embankment of a section of the Dąbrocznia River at the length of 812 m, including the construction of a new weir. The extension of the reservoir is aimed at increasing the flood protection for Miejska Górka and the agricultural lands below, in the Dąbrocznia valley.	778	Wrocław RWMB	Wielkopolskie	after securing funds	3 years from the start of work	high risk of drought
74	Odra	Rów Polski	Construction of the Rokosowo reservoir	Construction of a retention reservoir with a capacity of 869 thousand m <sup>3</sup> and the regulation and embankment of a section of the Rów Polski watercourse at the length of 1.363 km. The reservoir will retain water by retaining the floodwater in the river, maintaining this volume for possible flow supply in the period of low water levels, when natural flows in the river decrease to the environmental level.	869	Wrocław RWMB	Wielkopolskie	after securing funds	3 years from the start of work	high risk of drought
75	Odra	Mała Śleza, Żelówicka Woda	Maieszów - construction of a reservoir, Kondratowice Comm.	Construction of a retention reservoir with a capacity of 1.3 million m <sup>3</sup> .	1 300	Wrocław RWMB	Dolnośląskie	after securing funds	5 years from the start of work	high risk of drought
76	Odra	Odra	Odra-Odrzyca Canal, Skarbmierz and Lubusza Comm.	Construction of a gravity-led water system in order to supply the Odrzyca stream with the water of the Odra River in the period from 1st April to 30th September each year in the amount of: - with an average water level in the Odra river (average state of the annual averages) - Q = 0.15 m <sup>3</sup> / s. - with an average water level of the highest water levels in the Odra river (average state of the annual maxima) - Q = 0.26 m <sup>3</sup> / s. During drought, the Odrzyca stream carries practically no water. Supplying it with the Odra waters will improve the soil and water conditions in the areas adjacent to the watercourse, improving the productivity of agricultural soils.	no data	Wrocław RWMB	Opolskie	after securing funds	1 year from the date of commencement of works	high risk of drought
77	Odra	Odra	Kamieniec Ząbkowski water reservoir on the Nysa Kłodzka River	1. Development of technical documentation for the construction of the Kamieniec Ząbkowski reservoir on the Nysa Kłodzka River with the capacity of approx. 100 mln m <sup>3</sup> , including necessary administrative decisions, 2. Construction of the Kamieniec Ząbkowski reservoir.	100 000	Wrocław RWMB	Dolnośląskie	after securing funds	8 years from the start of work	high risk of drought
78	Vistula	Vistula	Protection against flood waters of the lower section of the Vistula River from Włocławek to its estuary into the Bay - the water barrage below Włocławek	Preparation of the investment including the preparation of the required environmental documentation and obtaining appropriate exemptions.	no data	NWMA	Kujawsko-Pomorskie	2020	2029	moderate risk of drought