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Project: The review and update of the flood hazard maps and flood risk maps
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METHODOLOGY FOR THE DEVELOPMENT OF FLOOD HAZARD MAPS AND FLOOD RISK MAPS IN THE 2nd PLANNING CYCLE

ANNEX no 2

ATTRIBUTE STRUCTURE OF THE DIGITAL VERSION OF FLOOD HAZARD MAPS AND FLOOD RISK MAPS

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1. ATTRIBUTE STRUCTURE OF DIGITAL FHM AND FRM

The attribute structure of digital flood hazard maps and flood risk maps for rivers includes:

- reference layers;
- layers of flood hazard maps;
- layers of flood risk maps.

1.1 REFERENCE LAYERS

The reference layers for the whole area under development include:

- natural watercourses and canals;
- other watercourses;
- surface waters;
- roads;
- railroads;
- voivodeship;
- district;
- commune;
- 1:10,000 scale sheet division of maps for the PL-1992 system.

Natural watercourses and canals (hydrographic network)

- Layer: watercourses_canals;
- Type of layer: line;
- Description: sections of main natural watercourses and canals with names according to MPHP10k;
- Source of data: MPHP10k rivers_o (modelled rivers are verified on the basis of DTM, orthophotomap and riverbed cross-sections);
- Type of map: flood hazard map, flood risk map.

Attribute	Field type	Description	Attribute source
ID_HYD_R	T(22)	Identifier from MPHP10k	PGW WP/MPHP10k
NAZWA_MPHP	T(254)	Name of the watercourse according to MPHP10k	PGW WP/MPHP10k
RODZAJ	SINT(5)	Type where: 1-natural watercourse; 2-artificial watercourse – canal; 3-artificial watercourse – ditch; 4-artificial watercourse – pipeline; 11-natural watercourse – river; 12-natural watercourse – creek; 13-natural watercourse – brook; 14-natural watercourse – stream; 15-natural watercourse – old riverbed; 16-natural watercourse – oxbow.	PGW WP/MPHP10k
SZEROKOSC	SINT(5)	Width of the watercourse: 1-not specified (for artificial connection); 2-below 1.5 m; 3-from 1.5 m to 5m; 4-above 5 m.	PGW WP/MPHP10k
OKRESOWOSC	SINT(5)	Determine whether the watercourse is constantly or periodically filled with water: 1-constant; 2-periodical; 3-hidden (underground); 4-flowing through the syphon; 5-flowing through the aqueduct.	PGW WP/MPHP10k
OPIS	T(254)	Additional information: “modified object” – when making changes to the object with MPHP10k (concerns geometry and attributes); “no object in MPHP10k, vectorization has been performed” – in case of introducing a	PGW WP/aMZPiMRP

Attribute	Field type	Description	Attribute source
		new object; “main name” – if you choose the name of the watercourse or its section.	
WERSJA	T(25)	Information on the version of MZPiMRP maps: 2015v1, 2017v1, 2019v1 etc.	PGW WP/aMZPiMRP

Table 1: Attribute structure of the watercourses_canals layer

Other watercourses (hydrographic network)

- layer: watercourses_other;
- type of layer: line;
- description: layer including other natural or artificial watercourses, mainly drainage ditches;
- data source: MPHP10k: rivers_n;
- type of map: flood hazard map, flood risk map.

Attribute	Field type	Description	Attribute source
OPIS	T(254)	Additional information: "modified object" – when making changes to the object with MPHP10k (concerns geometry and attributes); "no object in MPHP10k, vectorization was performed" – in case of introducing a new object; "main name" – if you choose the name of the watercourse or its section.	PGW WP/aMZPiMRP
WERSJA	T(25)	Information on the version of MZPiMRP maps: 2015v1, 2017v1, 2019v1 etc.	PGW WP/aMZPiMRP

Table2: Attribute structure of the watercourses_other layer

Surface waters (hydrographic network)

- layer: surface_waters;
- type of layer: polygon;
- description: areas occupied by still waters (lakes, ponds, reservoirs) and by flowing and sea waters, the surface of which can be presented in the map scale 1:10,000;
- data source: GUGiK/BDOT10k and PGW WP/MPHP10k;
- type of map: flood hazard map, flood risk map.

Attribute	Field type	Description	Attribute source
ID_HYD_R	T(22)	Identifier from MPHP10k	PGW WP/MPHP10k
NAZWA_MPHP	T(254)	Name of the watercourse according to MPHP10k	PGW WP/MPHP10k
IdIIP_BT_I	T(50)	Local BDOT10k identifier. For sheets from cycle I not subject to update: “ND”.	GUGiK/BDOT10k
IdIIP_BT_1	T(50)	Name space BDOT10k identifier. For sheets from cycle I not subject to update: “ND”.	GUGiK/BDOT10k
IdIIP_BT_2	T(50)	BDOT10k version identifier. For sheets from cycle I not subject to update: “ND”.	GUGiK/BDOT10k
RODZAJ	T(3)	Type of surface: Pp – flowing waters; Ps – standing waters; Pm – sea waters.	GUGiK/BDOT10k
OPIS	T(254)	Additional information: “modified object” – when making changes to an object from BDOT10k (applies to geometry and attributes); “no object in BDOT10k, vectorization was performed” – in case of introducing a new object; “main name” – if you choose the name of the watercourse or its section.	CODM/aMZPiMRP

Table 3: Attribute structure of the surface_waters layer

Roads

- layer: roads;
- type of layer: line;
- description: public roads intended for road traffic, without internal roads and short sections of farm access roads;
- data source: GUGiK/BDOT10k;
- type of map: flood hazard map, flood risk map.

Attribute	Field type	Description	Attribute source
IdIIP_BT_I	T(50)	Local identifier BDOT10k	GUGiK/BDOT10k
IdIIP_BT_1	T(50)	Name space identifier BDOT10k	GUGiK/BDOT10k
IdIIP_BT_2	T(50)	BDOT10k version identifier	GUGiK/BDOT10k
TYP	T(3)	Type of road: K – national road; W – provincial road; P – district road; G – commune road; I – other roads.	GUGiK/BDOT10k
SZER_DROGI	D	Top's width of road with roadway	GUGiK/BDOT10k
SZER_NAW	D	Width of surface	GUGiK/BDOT10k
RODZ_NAW	T(3)	Type of surface: Mb – bitumen mass; Bt – concrete; Br – cobblestone; Kk – paving stone; Kp – prefabricated paving; Pb – concrete slabs; Tl – crushed stone; Zw – gravel; Gz – stabilized with gravel or slag; Gr – natural ground; In – different; Kl – clinker.	GUGiK/BDOT10k
OPIS	T(254)	Additional information in case of object changes from BDOT10k or entering a new object: "modified object" or "no object in BDOT10k, vectorisation performed".	PGW WP/aMZPiMRP

Table4: Attribute structure of road layer

Railways

- layer: railways;
- type of layer: line;
- description: the layer includes railway routes;
- data source: GUGiK/BDOT10k;
- type of map: flood hazard map, flood risk map.

Attribute	Field type	Description	Attribute source
IdIIP_BT_I	T(50)	Local identifier BDOT10k	GUGiK/BDOT10k
IdIIP_BT_1	T(50)	Name space identifier BDOT10k	GUGiK/BDOT10k
IdIIP_BT_2	T(50)	BDOT10k version identifier	GUGiK/BDOT10k
LICZBA_TOR	SINT(2)	Number of tracks	GUGiK/BDOT10k
RODZAJ_TOR	T(3)	Kind of tracks: Ts – wide; Tn – normal; Tw – narrow.	GUGiK/BDOT10k
OPIS	T(254)	Additional information when making changes to an object with BDOT10k or when making a new object record: “modified object” or “no object in BDOT10k, vectorization has been performed”.	PGW WP/aMZPiMRP

Table 5: Attribute structure of the railway layer

The voivodeship

- layer: voivodeship;
- type of layer: polygon;
- description: voivodeship border, according to the State Border Register;
- data source: GUGiK/PRG, GUS/TERYT;
- type of map: Flood hazard map, Flood risk map.

Attribute	Field type	Description	Attribute source
IdIIP_I	T(50)	PRG local identifier	GUGiK/PRG
IdIIP_1	T(50)	PRG namespace identifier	GUGiK/PRG
IdIIP_2	T(50)	Version identifier	GUGiK/PRG
NAZWA	T(30)	Voivodeship name	GUGiK/PRG
TERYT	T(2)	Voivodeship TERYT	GUS/TERYT
OPIS	T(254)	Additional information	PGW WP/aMZPiMRP

Table 6: Attribute structure of the voivodeship layer

District

- layer: district;
- type of layer: polygon;
- description: district border, according to the State Border Register;
- data source: GUGiK/PRG, GUS/TERYT;
- type of map: Flood hazard map, Flood risk map.

Attribute	Field type	Description	Attribute source
IdIIP_I	T(50)	PRG local identifier	GUGiK/PRG
IdIIP_1	T(50)	PRG namespace identifier	GUGiK/PRG
IdIIP_2	T(50)	Version identifier	GUGiK/PRG
NAZWA	T(30)	District name	GUGiK/PRG
TERYT	T(4)	District TERYT	GUS/TERYT
OPIS	T(254)	Additional information	PGW WP/aMZPiMRP

Table7: Attribute structure of the district layer

Commune

- layer: commune;
- type of layer: polygon;
- description: commune border, according to the State Border Register;
- data source: GUGiK/PRG, GUS/TERYT;
- type of map: Flood hazard map, Flood risk map.

Attribute	Field type	Description	Attribute source
IdIIP_I	T(50)	PRG local identifier	GUGiK/PRG
IdIIP_1	T(50)	PRG namespace identifier	GUGiK/PRG
IdIIP_2	T(50)	Version identifier	GUGiK/PRG
NAZWA	T(30)	Commune name	GUGiK/PRG
TERYT	T(7)	Commune TERYT	GUS/TERYT
OPIS	T(254)	Additional information	PGW WP/aMZPiMRP

Table8: Attribute structure of the commune layer

Sheet division of maps in 1:10,000 scale for PL-1992 layout

- Layer: sheet_frame;
- type of layer: polygon;
- description: area coverage in 1:10,000 sheet map scale in PLN-1992 coordinate system;
- data source: GUGiK;
- type of map: flood hazard map, flood risk map.

Attribute	Field type	Description	Attribute source
NUMER	T(38)	Sheet number Sheet emblem, e.g.: M-33-6-B-c-2	GUGiK
NAZWA	T(254)	Sheet name, e.g.: Tears	GUGiK
AKT_MZP_10	T(10)	Specifying the version of FHM for 10% scenario (e.g. 2015v1)	PGW WP/aMZPiMRP
AKT_MZP_1	T(10)	Specifying the version of FHM for 1% scenario (e.g. 2015v1)	PGW WP/aMZPiMRP
AKT_MZP_02	T(10)	Specifying the version of FHM for 0.2% scenario (e.g. 2015v1)	PGW WP/aMZPiMRP
AKT_MZP_WZ	T(10)	Specifying the version of FHM for the WZ scenario (e.g. 2015v1)	PGW WP/aMZPiMRP
AKT_MRP_10	T(10)	Determining the version of FRM for 10% scenario (e.g. 2015v1)	PGW WP/aMZPiMRP
AKT_MRP_1	T(10)	Determining the version of FRM for 1% scenario (e.g. 2015v1)	PGW WP/aMZPiMRP
AKT_MRP_02	T(10)	Determining the version of FRM for 0.2% scenario (e.g. 2015v1)	PGW WP/aMZPiMRP
AKT_MRP_WZ	T(10)	Determining the version of FRM for WZ scenario (e.g. 2015v1)	PGW WP/aMZPiMRP
OPIS	T(254)	Additional information	PGW WP/aMZPiMRP
WERSJA	T(25)	Information on the version of maps of the MZPiMRP: 2015v1, 2017v1, 2019v1 etc.	PGW WP/aMZPiMRP

Table 9: Attribute structure of the sheet_frame layer

1.2 LAYERS OF FLOOD HAZARD MAPS

Flood hazard maps in the extend of the flood hazard area shall include:

- flood hazard area for rivers;
- water depth;
- water velocity;
- water flow directions;
- maximum ordinates of the water level;
- ordinates of flood embankment's top in cross-sections;
- places where water overflows through the flood embankment;
- place where the flood embankment was completely destroyed;
- flood embankments;
- chainage.

Flood risk area for rivers

- layers:
  - area_hazard_area_rivers_10 (Q 10% (10 years));
  - area_hazard_area_rivers_1 (Q 1% (100 years));
  - area_hazard_area_rivers_02 (Q 0.2% (500 years));
  - area_hazard_area_rivers_WZ (for the scenario of total destruction of the embankment Q 1% (100 years)).
- type of layer: polygon;
- description: flood hazard area resulting from 1D or 2D hydraulic modelling for specific river;
- data source: PGW WP/aMZPiMRP;
- type of map: flood hazard map, flood risk map.

Attribute	Field type	Description	Attribute source
ID_HYD_R	T(22)	Hydrographic identifier of a watercourse or reservoir from MPHP10k	PGW WP/MPHP10k
NAZWA_MPHP	T(254)	Name of the watercourse or reservoir from MPHP10k	PGW WP/MPHP10k
ID_PRNG	T(38)	Identifier of river or reservoir, according to PRNG	PRNG
NAZWA_PRNG	T(254)	Name of the watercourse or reservoir, according to PRNG	PGW WP/MPHP10k
NAZ_DORZ	T(100)	Name of the river basin, e.g.: “Danube river basin area”	PGW WP/WORP
KOD_DORZ	T(42)	River basin code: “PL1000” – Danube river basin area; “PL2000” – Vistula river basin area; “PL3000” – Świeża river basin area; “PL4000” – Banówka river basin area; “PL5000” – Elbe river basin area; “PL6000” – Oder river basin area; “PL7000” – Pregola river basin area; “PL8000” – Neman river basin area; “PL9000” – Dniester river basin area.	PGW WP/WORP

Attribute	Field type	Description	Attribute source
NAZ_RW	T(100)	Name of the water region: water region of the Little Vistula; water region of the Upper-Western Vistula; water region of the Upper-Eastern Vistula; water region of the Narew; water region of the Bug; water region of the Central Vistula; water region of the Lower Vistula; water region of the Upper Oder; water region of the Central Oder; water region of the Lower Oder and Western Pomerania; water region of the Warta; water region of the Noteć; water region of the Dniester; water region of the Black Orava; water region of the Czadeczki; water region of the Morava; water region of the Banówka; water region of the Jizera; water region of the Elbe and the Ostrożnica (Upa); water region of the Metuje; water region of the Orlica; water region of the Neman; water region of the Łyna and the Węgorapa; water region of the Świeża.	KZGW
NAZ_ZLEWNI	T(250)	Name of the catchment area (description compliant with MPHP10k)	PGW WP/MPHP10k
KOD_OB_N	T(42)	Flood-prone area code	PGW WP/WORP
ID_SCEN	T(5)	Script ID: 10 – 10% scenario 1 – 1% scenario 02 – 0.2% scenario WZ – scenario of total destruction of the embankment Q 1%	PGW WP/aMZPiMRP
OPIS	T(254)	Additional information	PGW WP/aMZPiMRP
WERSJA	T(25)	Information on the version of maps of the MZPiMRP: 2015v1, 2017v1, 2019v1 etc.	PGW WP/aMZPiMRP

Table 10: Attribute structure of layer: area_hazard_area_river_10 (Q 10% (10 years)); area_hazard_area_river_1 (Q 1% (100 years)); area_hazard_area_river_02 (Q 0.2% (500 years)); area_hazard_area_river_WZ (for the scenario of total destruction of the dike Q 1% (100 years));

Water depth

- layers:
  - depth_10 (Q 10% (10 years));
  - depth_1 (Q 1% (100 years));
  - depth_02 (Q 0.2% (500 years));
  - depth_WZ (total destruction of the embankment).
- type of layer: polygon;
- description: water depth determined by 1D or 2D hydraulic modelling; for each flood scenario the depths are shown on separate layers;
- data source: PGW WP/aMZPiMRP;
- type of map: flood hazard map.

Attribute	Field type	Description	Attribute source
DEPTH	T(1)	Description of depth classes: 1 – <= 0.5 m; 2 – 0.5-2 m; 3 – 2-4 m; 4 – >4 m.	PGW WP/aMZPiMRP
VERSION	T(25)	Information on the version of maps of the MZPiMRP: 2015v1, 2017v1, 2019v1 etc.	PGW WP/aMZPiMRP

Table11: Attribute structure of the depth layer: depth_10 (Q 10% (10 years)); depth_1 (Q 1% (100 years)); depth_02 (Q 0.2% (500 years)); depth_WZ (total destruction of the flood embankment)

Water flow velocity

- layers:
  - velocity_10 (Q 10% (10 years));
  - velocity_1 (Q 1% (100 years));
  - velocity_02 (Q 0.2% (500 years)).
- type of layer: polygon;
- description: velocity flow determined as a result of 2D hydraulic modelling for voivodeship cities and cities with poviat rights, as well as other cities with population over 100,000;
- data source: PGW WP/aMZPiMRP;
- type of map: flood hazard map.

Attribute	Field type	Description	Attribute source
PREDKOSC	T(1)	Description of velocity classes 1 – <= 0.5m/sec; 2 – 0.5-1m/s; 3 – 1-2m/sec; 4 – >2m/s.	PGW WP/aMZPiMRP
WERSJA	T(25)	Information on the version of maps of the MZPiMRP: 2015v1, 2017v1, 2019v1 etc.	PGW WP/aMZPiMRP

Table12: Attribute structure of the layer: speed_10 (Q 10% (10 years)); speed_1 (Q 1% (100 years)); speed_02 (Q 0.2% (500 years))

Directions of water flow

- layers:
  - flow_directions_10 (Q 10% (10 years));
  - flow_direction_1 (Q 1% (100 years));
  - flow_directions_02 (Q 0.2% (500 years)).
- type of layer: point;
- description: direction of water flow determined as a result of 2D hydraulic modelling for voivodeship cities and cities with poviat rights, as well as other cities with population over 100,000;
- data source: PGW WP/aMZPiMRP;
- type of map: flood hazard map

Attribute	Field type	Description	Attribute source
KIER_PRZEP	SINT(3)	Direction of velocity vector 0-360	PGW WP/aMZPiMRP
WERSJA	T(25)	Information on the version of maps of the MZPiMRP: 2015v1, 2017v1, 2019v1 etc.	PGW WP/aMZPiMRP

Table 13: Attribute structure of the layer: flow_directions_10 (Q 10% (10 years)); flow_directions_1 (Q 1% (100 years)); flow_directions_02 (Q 0.2% (500 years))

Maximum water level ordinates

- layer: max_water_table_ordinate;
- type of layer: point;
- description: specific maximum water level level for a given scenario – result of 1D or 2D hydraulic modelling;
- data source: PGW WP/aMZPiMRP;
- type of map: hazard map.

Attribute	Field type	Description	Attribute source
ID_HYD_R	T(22)	Identifier from MPHP10k	PGW WP/MPHP10k
NAZWA_MPHP	T(254)	Name of the watercourse or reservoir, according to MPHP10k	PGW WP/MPHP10k
RZEDNA_10	F(7,2)	Maximum water level ordinate, resulting from modelling in m.a.s.l. for a scenario with a 10% probability (10 years)	PGW WP/aMZPiMRP
RZEDNA_1	F(7,2)	Maximum water level ordinate, resulting from modelling in m.a.s.l. for a scenario with a 1% probability (100 years)	PGW WP/aMZPiMRP
RZEDNA_02	F(7,2)	Maximum water level ordinate, resulting from modelling in m.a.s.l. for a scenario with 0.2% probability (500 years)	PGW WP/aMZPiMRP
RZEDNA_WZ	F(7,2)	Maximum water level ordinate, resulting from modelling in m.a.s.l. for a scenario of total embankment damage with a 1% probability (100 years)	PGW WP/aMZPiMRP
TERASA_ZAL	T(2)	Identifier of the water level ordinates located in the embankment: L – left flood terrace P – right floodplain terrace	PGW WP/aMZPiMRP
OPIS	T(254)	Additional information	PGW WP/aMZPiMRP
WERSJA	T(25)	Information on the version of maps of the MZPiMRP: 2015v1, 2017v1, 2019v1 etc.	PGW WP/aMZPiMRP

Table14: Attribute structure of the max_water_table_ordinate layer

Ordinates of flood embankment's top

- Layer: flood_embankments_ordinates;
- type of layer: point;
- description: top of flood embankments in cross-sections;
- data source: PGW WP/aMZPiMRP;
- type of map: flood hazard map.

Attribute	Field type	Description	Attribute source
ID_HYD_R	T(22)	Identifier from MPHP10k	PGW WP/MPHP10k
NAZWA_MPHP	T(254)	Name of the watercourse or reservoir in accordance with MPHP10k	PGW WP/MPHP10k
RZEDNA	F(7,2)	Maximum top of flood embankments ordinate in m.a.s.l.	PGW WP/aMZPiMRP
OPIS	T(254)	Additional information	PGW WP/aMZPiMRP
WERSJA	T(25)	Information on the version of maps of the MZPIMRP: 2015v1, 2017v1, 2019v1 etc.	PGW WP/aMZPiMRP

Table15: Attribute structure of the flood_embankments_ordinates layer

Places of overflow of water through the embankment

- layers:
  - places_water_overflow_10 (water Q 10% (10 years));
  - places_water_overflow _1 (Q 1% (100 years));
  - places_water_overflow _02 (Q 0.2% (500 years)).
- type of layer: line;
- description: place of overflow of water through the embankment;
- data source: PGW WP/aMZPiMRP;
- type of map: flood hazard map.

Attribute	Field type	Description	Attribute source
ID_HYD_R	T(22)	Identifier from MPHP10k	PGW WP/MPHP10k
NAZWA_MPHP	T(254)	Name of the watercourse or reservoir, in accordance with MPHP10k	PGW WP/MPHP10k
BRZEG	T(1)	Type of bank: L – left; P – right; O – band; I – other.	PGW WP/aMZPiMRP
OPIS	T(254)	Additional information	PGW WP/aMZPiMRP
WERSJA	T(25)	Information on the version of maps of the MZPIMRP: 2015v1, 2017v1, 2019v1 etc.	PGW WP/aMZPiMRP

Table16: Attribute structure of the layer: places_water_overflow_10 (Q 10% (10 years)); places_water_overflow_1 (Q 1% (100 years)); places_water_overflow_02 (Q 0.2% (500 years))

Places of total destruction of the embankment

- Layer: total destruction of the embankment;
- type of layer: line;
- description: place of total destruction of the embankment, taken into account in hydraulic modelling;
- data source: PGW WP/aMZPiMRP;
- type of map: flood hazard map.

Attribute	Field type	Description	Attribute source
ID_HYD_R	T(22)	Identifier of a watercourse or reservoir from MPHP10k	PGW WP/MPHP10k
NAZWA_MPHP	T(254)	Name of the watercourse or reservoir, in accordance with MPHP10k	PGW WP/MPHP10k
RDZ_WALU	T(2)	W – flood embankment; Z – side dam.	PGW WP/aMZPiMRP
OPIS	T(254)	Additional information	PGW WP/aMZPiMRP
WERSJA	T(25)	Information on the version of maps of the MZPIMRP: 2015v1, 2017v1, 2019v1 etc.	PGW WP/aMZPiMRP

Table17: Attribute structure of the total_destruction_embankment layer

Flood embankments

- Layer: flood embankments;
- type of layer: line;
- description: layer depicting sections of flood embankments;
- data source: BDOT10k/NMT Lidar/objects administrators;
- type of map: flood hazard map, flood risk map.

Attribute	Field type	Description	Attribute source
MATERIAL	T(2)	Type of construction material for an embankment or dike: 1 – with concrete lining; 2 – earthen.	GUGiK/BDOT10k
RODZAJ	T(2)	Type of object: W – flood embankment; Z – side dam.	PGW WP/aMZPiMRP
SZER_KOR	D	Width in the embankment's top	GUGiK/BDOT10k
WYSOKOSC	D	Height of the embankment	GUGiK/BDOT10k
ID_HYD_R	T(22)	Identifier from MPHP10k	PGW WP/MPHP10k
NAZWA_MPHP	T(254)	Name of the watercourse or reservoir, in accordance with MPHP10k	PGW WP/MPHP10k
ID_JEZ	T(38)	Identifier of the reservoir to be secured	PGW WP/MPHP10k
ID_PRNG	T(38)	Identifier of river or reservoir	GUGiK/BDOT10k
NAZWA_PRNG	T(254)	Name according to BDOT10k	GUGiK/BDOT10k
KL_OBIEKTU	T(3)	Object validity class: I – the validity class; II – validity class; III – validity class; IV – validity class; BD – no data.	RZGW/WZMIUW
BRZEG	T(1)	Type of bank: L – left; P – right; O – band; I – other.	RZGW/WZMUW/PGW WP/aMZPiMRP
OPIS	T(254)	Additional information	PGW WP/aMZPiMRP
WERSJA	T(25)	Information on the version of maps of the MZPIMRP: 2015v1, 2017v1, 2019v1 etc.	PGW WP/aMZPiMRP

Table18: Attribute structure of the flood_embankments layer

Chainage

- layer: chainage;
- type of layer: point;
- description: kilometre of the river in the section for which the OZP was developed, presented every 500 m;
- data source: PGW WP/aMZPiMRP;
- type of map: flood hazard map, flood risk map.

Attribute	Field type	Description	Attribute source
ID_HYD_R	T(22)	Hydrographic identifier of a watercourse or reservoir from MPHP10k	PGW WP/MPHP10k
NAZWA_MPHP	T(254)	Name of the watercourse, according to MPHP10k	PGW WP/MPHP10k
ID_PRNG	T(38)	Identifier of the watercourse	GUGiK/PRNG
NAZWA_PRNG	T(254)	Name of the watercourse, according to MPHP10k	GUGiK/PRNG
KM_PKT	F(5,1)	Kilometre of a watercourse	PGW WP/aMZPiMRP
OPIS	T(254)	Additional information	PGW WP/aMZPiMRP
WERSJA	T(25)	Information on the version of maps of the MZPIMRP: 2015v1, 2017v1, 2019v1 etc.	PGW WP/aMZPiMRP

Table 19: Attribute structure of the chainage layer

1.3 LAYERS OF FLOOD RISK MAPS

The flood risk maps in the extend of the flood hazard area shall include:

- land use;
- land use with calculated potential flood damages;
- buildings;
- industrial plants;
- water abstraction;
- water intake protection zones;
- bathing waters;
- forms of nature conservation;
- culturally valuable areas;
- culturally valuable objects;
- zoos;
- cemeteries (potential pollution sources);
- landfill sites (potential pollution sources);
- wastewater treatment plants and pumping stations (potential pollution sources);
- localities.

Land use

- layers:
  - use_10 (Q 10% (10 years));
  - use_1 (Q 1% (100 years));
  - use_02 (Q 0.2% (500 years));
  - use_WZ (for the scenario of total destruction of the flood embankment Q 1% (100 years)).
- type of layer: polygon;
- description: terrain surfaces distinguishable by physiognomic features. Land-use classes:
  - residential development areas – include: block buildings, downtown housing, single-family houses and other, i.e. infrastructure between the buildings, e.g. playgrounds, car parks, green areas, courtyards, shelters, livestock buildings, areas of commercial and service buildings, sacral buildings, public administration, etc;
  - industrial areas – include: industrial and warehouse buildings, areas under technical equipment or construction, waste disposal sites, landfills, excavation sites, post-mining pits, other industrial and storage areas;
  - communication areas – include: areas occupied by roadways, tracksides, hardened airport roads together with traffic handling equipment, such as: sidings, ramps, aircraft parking lots, squares with and without hard surface;
  - forests – include: forests, groves, coppices and forest nurseries;
  - recreation and leisure areas – include: mainly allotment gardens, sports and recreation centres, holiday home complexes, parks, green areas in urban areas, including lawns, botanical and zoological gardens, campsites;
  - arable land and permanent crops – include: areas occupied by field crops, plantations and orchards;
  - grassland – include: meadows and pastures;
  - other areas – include: bushy or wooded areas, uncovered land;
- data source: GUGiK/BDOT10k;
- type of map: flood risk map.

Attribute	Field type	Description	Attribute source
ID_KLAS	T(2)	Land use classes: 1 – residential areas; 2 – industrial areas; 3 – communication areas; 4 – forests; 5 – recreation and leisure areas; 6 – arable land and permanent crops; 7 – grassland; 8 – other areas.	GUGiK/BDOT10k; PGW WP/aMZPiMRP.
CHAR_ZAB	T(3)	Nature of housing development: Gst – dense housing; Zwr – compact housing; Luz – loose housing; ND – not applicable.	GUGiK/BDOT10k
WERSJA	T(25)	Information on the version of maps of the MZPIMRP: 2015v1, 2017v1, 2019v1 etc.	PGW WP/aMZPiMRP

Table 20: Attribute structure of the layer: use_10 (Q 10% (10 years)); use_1 (Q 1% (100 years)); use_02 (Q 0.2%) (500 years)); use_WZ (for the scenario of total destruction of the embankment Q 1% (100 years))

Land use with calculated potential flood loss values

- layers:
  - use_loss_10 (Q 10% (10 years));
  - use_loss_1 (Q 1% (100 years));
  - use_loss_02 (Q 0.2% (500 years));
  - use_loss_WZ (for the scenario of total destruction of the embankment Q 1% (100 years)).
- type of layer: polygon;
- data source: BDOT10k;
- type of map: flood risk map.

Attribute	Field type	Description	Attribute source
ID_KLAS	T(2)	Land use classes: 1 – residential areas; 2 – industrial areas; 3 – communication areas; 4 – forests; 5 – recreation and leisure areas; 6 – arable land and permanent crops; 7 – grassland; 8 – other areas.	GUGiK/BDOT10k; PGW WP/aMZPiMRP
GLEBOKOSC	T(2)	Description of depth classes 1 – <= 0.5 m; 2 – 0.5-2 m; 3 – 2-4 m; 4 – >4 m; ND – not applicable (only for land use classes: 4, 5 and 8, where the value of flood damages is not dependent on depth).	PGW WP/aMZPiMRP
STR_NA_M2	D	Value of potential unit damages in PLN/m²	PGW WP/aMZPiMRP
STRATA	D	The value of potential flood damages in PLN (rounded to full zloty e.g. 175.51 = 176; 175.30 = 175) i.e. from 1 to 49 grosz – rounded down; from 50 to 99 grosz – rounded up.	PGW WP/aMZPiMRP
WERSJA	T(25)	Information on the version of maps of the MZPiMRP: 2015v1, 2017v1, 2019v1 etc.	PGW WP/aMZPiMRP

Table21: Attribute structure of the layer: use_loss_10 (Q 10% (10 years)); use_loss_1 (Q 1% (100 years)); use_loss_02 (Q 0.2% (500 years)); use_loss_WZ (for the scenario of total destruction of the embankment Q 1% (100 years))

Buildings

- layer: buildings;
- type of layer: polygon;
- description: the layer contains residential buildings and selected buildings of social importance;
- data source: GUGiK/BDOT10k, GUS;
- type of map: flood risk map.

Attribute	Field type	Description	Attribute source
IdIIP_BT_I	T(50)	Local identifier BDOT10k	GUGiK/BDOT10k
IdIIP_BT_1	T(50)	Name space identifier BDOT10k	GUGiK/BDOT10k
IdIIP_BT_2	T(50)	BDOT10k version identifier. For sheets from cycle I not subject to update: “ND”	GUGiK/BDOT10k
ID_MIEJSC	T(38)	ID_PRNG of the locality	GUGiK/BDOT10k
MIEJSC	T(254)	Name of the locality	GUGiK/BDOT10k
ID_ULICY	T(7)	Street TERYT. “BD” in case the PRG address point cannot be matched	GUGiK/PRG_AD
N1_UL	T(15)	Prefix of the name, e.g. al., ul.	GUGiK/PRG_AD
N2_UL	T(30)	Prefix of the name, e.g. Św., Marszałka	GUGiK/PRG_AD
N3_UL	T(100)	First part of the name, e.g. Jana	GUGiK/PRG_AD
N4_UL	T(100)	Main part of the street name	GUGiK/PRG_AD
NUMER	T(20)	Building number	GUGiK/PRG_AD
KONDYG	SINT(2)	Number of floors (ground floor is counted as the first floor).	GUGiK/BDOT10k
KLASYFIK	T(1)	Building classification: m – residential; s – of social importance.	GUGiK/BDOT10k

Attribute	Field type	Description	Attribute source
FUNKCJA	T(7)	A detailed function of the building: Residential buildings: 1110.Dj – single-family building; 1121.Db – building with two apartments; 1122.Dw – multi-family building; 1130.Dd – orphanage; 1130.Ds – student dorm; 1130.In – residence hall; 1130.Hr – worker's hostel; 1130.Kl – monastery; 1130.Bs – boarding house; 1130.Db – homeless shelter; 1130.Dp – parish house; 1130.Po – care and education centre. Buildings of social importance: 1264.Hs – hospice; 1130.Os – nursing home; 1220.Pc – police; 1220.Sp – fire department; 1220.Sg – border guard units; 1230.Ch – mall; 1230.Ht and 1230.Hm – market hall, hypermarket; 1211.Ht and 1211.Mt and 1211.Zj and 1211.Pj – hotel, inn, motel, guesthouse; 1212.Dw – holiday home; 1274.Zp – penitentiary or correctional facility; 1274.Ace – custody; 1263.Ps – kindergarten; 1263.Sp and 1263.Sd and 1263.Sw – school; 1130.Zp – correctional facility; 1130.Zk – penitentiary; 1264.Zb – nursery; 1264.St – sanatorium; 1264.Sh – hospital.	GUGiK/BDOT10k
L_MIESZ	LINT(6)	Estimated number of inhabitants in the building for buildings of social importance – 7777.	GUS
GLEBO_10	T(1)	Depth of the deluge: 2 – over 2 m; 1 – below 2 m; 0 – the building is not in flooding area in this scenario.	PGW WP/aMZPiMRP

Attribute	Field type	Description	Attribute source
GLEBO_1	T(1)	Depth of the deluge: 2 – over 2 m; 1 – below 2 m; 0 – the building is not in flooding area in this scenario.	PGW WP/aMZPiMRP
GLEBO_02	T(1)	Depth of the deluge: 2 – over 2 m; 1 – below 2 m; 0 – the building is not in flooding area in this scenario.	PGW WP/aMZPiMRP
GLEBO_WZ	T(1)	Depth of the deluge: 2 – over 2 m; 1 – below 2 m; 0 – the building is not in flooding area in this scenario.	PGW WP/aMZPiMRP
OPIS	T(254)	Additional information to be filled, in particular: e.g. when the building is located on two different streets and has more than two street names in the address and in the case of Border Guard units, where it should be indicated whether it is a headquarters or a centre; in addition when making changes to an object with the BDOT10k or when introducing a new object, records: “modified object” or “no object in the BDOT10k, the vectorization was done” are made	PGW WP/aMZPiMRP
WERSJA	T(25)	Information on the version of maps of the MZPiMRP: 2015v1, 2017v1, 2019v1 etc.	PGW WP/aMZPiMRP

Table 22: Attribute structure of the buildings layer

Industrial plants

- layer: industrial plants;
- type of layer: point;
- description: the layer contains the industrial plants, referred to in the Regulation on the development of flood hazard maps and flood risk maps;
- data source: GUGiK/BDOT10k, PGW WP, GIOŚ, WIOŚ, KG PSP, digitalization from orthophotomap;
- type of map: flood risk map.

Attribute	Field type	Description	Attribute source
ID_MIEJSC	T(38)	ID_PRNG of the locality	GUGiK/BDOT10k
MIEJSC	T(254)	Name of the locality	GUGiK/BDOT10k
KATEG	T(2)	Industry category: E – energy; P – production and processing of metals; M – mineral; C – chemical; O – waste management; I – other activities (production and processing of paper and wood, intensive rearing or breeding of poultry and pigs, production and processing of plant and animal raw materials).	PGW WP; MŚ
IPPC	T(2)	Information whether the facility has an integrated IPPC permit: T – has a permit; N – no permit.	MŚ
AWARIA	T(2)	Information whether the object is located in the register of establishments with a major or increased risk of a major accident: T – is in the register; N – not on the register.	GIOŚ/WIOŚ; KG PSP
SCEN_10	T(1)	T – the object is in the flood area in this scenario; N – the object is not in the flooded area in this scenario.	PGW WP/aMZPiMRP
SCEN_1	T(1)	T – the object is in the flood area in this scenario; N – the object is not in the flooded area in this scenario.	PGW WP/aMZPiMRP

Attribute	Field type	Description	Attribute source
SCEN_02	T(1)	T – the object is in the flood area in this scenario; N – the object is not in the flood area in this scenario.	PGW WP/aMZPiMRP
SCEN_WZ	T(1)	T – the object is in the flood area in this scenario; N – the object is not in the flood area in this scenario.	PGW WP/aMZPiMRP
OPIS	T(254)	Additional information, if changes were made to the object with BDOT10k or new records were entered: “modified object” or “no object in the BDOT10k, the vectorization was done”	PGW WP/aMZPiMRP
WERSJA	T(25)	Information on the version of maps of the MZPIMRP: 2015v1, 2017v1, 2019v1 etc.	PGW WP/aMZPiMRP

Table 23: Attribute structure of the industrial_plants layer

Water abstraction

- layer: water abstraction;
- type of layer: point;
- description: the layer includes water abstraction;
- data source: BDOT10k, PIG-PIB, PGW WP;
- type of map: flood risk map.

Attribute	Field type	Description	Attribute source
TYP	T(3)	Type of water intake: W – surface water; P – groundwater.	GUGiK/BDOT10k; PIG-PIB; PGW WP
SCEN_10	T(1)	T – the object is in the flood area in this scenario; N – the object is not in the flood area in this scenario.	PGW WP/aMZPiMRP
SCEN_1	T(1)	T – the object is in the flood area in this scenario; N – the object is not in the flood area in this scenario.	PGW WP/aMZPiMRP
SCEN_02	T(1)	T – the object is in the flood area in this scenario; N – the object is not in the flood area in this scenario.	PGW WP/aMZPiMRP
SCEN_WZ	T(1)	T – the object is in the flood area in this scenario; N – the object is not in the flood area in this scenario.	PGW WP/aMZPiMRP
OPIS	T(254)	Additional information	PGW WP/aMZPiMRP
WERSJA	T(25)	Information on the version of maps of the MZPIMRP: 2015v1, 2017v1, 2019v1 etc.	PGW WP/aMZPiMRP

Table24: Attribute structure of the water_intakes layer

Water abstraction protection zone

- layer: abstraction_zone;
- type of layer: polygon;
- description: the layer includes zones of indirect protection of water abstraction;
- data source: PGW WP;
- type of map: flood risk map.

Attribute	Field type	Description	Attribute source
TYP	T(3)	Type of water intake: W – surface water; P – groundwater; BD – no data.	PGW WP/aMZPiMRP
SCEN_10	T(1)	T – object is in the flood area in this scenario; N – object is not in the flood area in this scenario.	PGW WP/aMZPiMRP
SCEN_1	T(1)	T – object is in the flood area in this scenario; N – object is not in the flood area in this scenario.	PGW WP/aMZPiMRP
SCEN_02	T(1)	T – object is in the flood area in this scenario; N – object is not in the flood area in this scenario.	PGW WP/aMZPiMRP
SCEN_WZ	T(1)	T – object is in the flood area in this scenario; N – object is not in the flood area in this scenario.	PGW WP/aMZPiMRP
OPIS	T(254)	Additional information	PGW WP/aMZPiMRP
WERSJA	T(25)	Information on the version of maps of the MZPIMRP: 2015v1, 2017v1, 2019v1 etc.	PGW WP/aMZPiMRP

Table 25: Attribute structure of the intake_zone layer

Bathing waters

- layer: bathing waters;
- type of layer: point;
- description: water areas for recreational purposes, reported to the European Union and listed by the Chief Sanitary Inspectorate;
- data source: PIS-GIS;
- type of map: flood risk map.

Attribute	Field type	Description	Attribute source
ID_HYD_R	T(22)	Identifier from MPHP10k	PGW WP/MPHP10k
NAZWA_MPHP	T(254)	Name of the watercourse, according to MPHP10k	PGW WP/MPHP10k
ID_MIEJSC	T(38)	ID_PRNG of the locality	GUGiK/BDOT10k
MIEJSC	T(254)	Name of the locality	GUGiK/BDOT10k
SCEN_10	T(1)	T – object is in the flood area in this scenario; N – object is not in the flood area in this scenario.	PGW WP/aMZPiMRP
SCEN_1	T(1)	T – object is in the flood area in this scenario; N – object is not in the flood area in this scenario.	PGW WP/aMZPiMRP
SCEN_02	T(1)	T – object is in the flood area in this scenario; N – object is not in the flood area in this scenario.	PGW WP/aMZPiMRP
SCEN_WZ	T(1)	T – object is in the flood area in this scenario; N – object is not in the flood area in this scenario.	PGW WP/aMZPiMRP
OPIS	T(254)	Additional information	PGW WP/aMZPiMRP
WERSJA	T(25)	Information on the version of maps of the MZPIMRP: 2015v1, 2017v1, 2019v1 etc.	PGW WP/aMZPiMRP

Table 26: Attribute structure of the bathing water layer

Forms of nature conservation

- layer: forms_nature_conservation;
- type of layer: polygon;
- description: legally established forms of nature conservation;
- data source: GDOŚ;
- type of map: flood risk map.

Attribute	Field type	Description	Attribute source
TYP_OCHR	T(3)	Type of conservation form: PN – national park; RP – nature reserve; SOO – special areas of habitat protection Natura 2000; OSO – special bird protection areas Natura 2000.	GDOŚ
NAZWA	T(254)	Name of the area	GDOŚ
OPIS	T(254)	Additional information on the site, e.g. type of reserve, specially protected species	GDOŚ
SCEN_10	T(1)	T – object is in the flood area in this scenario; N – object is not in the flood area in this scenario.	PGW WP/aMZPiMRP
SCEN_1	T(1)	T – object is in the flood area in this scenario; N – object is not in the flood area in this scenario.	PGW WP/aMZPiMRP
SCEN_02	T(1)	T – object is in the flood area in this scenario; N – object is not in the flood area in this scenario.	PGW WP/aMZPiMRP
SCEN_WZ	T(1)	T – object is in the flood area in this scenario; N – object is not in the flood area in this scenario.	PGW WP/aMZPiMRP
WERSJA	T(25)	Information on the version of maps of the MZPIMRP: 2015v1, 2017v1, 2019v1 etc.	PGW WP/aMZPiMRP

Table 27: Attribute structure of the nature_conservation_forms layer

Culturally valuable areas

- layer: culturally_valuable_areas;
- type of layer: polygon;
- description: the layer contains fixed monumental areas, monuments included in the World Heritage List, extermination memorials, museums, open-air museums;
- data source: MKiDN, NID;
- type of map: flood risk map.

Attribute	Field type	Description	Attribute source
ID_MIEJSC	T(38)	ID_PRNG of the locality	GUGiK/BDOT10k
MIEJSC	T(254)	Name of the locality	GUGiK/BDOT10k
NR_REJ	T(254)	Number from the register of monuments (in extended form, including information on the numbers of the change of decision, deletion decisions, etc.).	NID
OBIEKT	T(2)	Object listed on the flood risk map: Z – real estate monument; P – extermination memorial; M – museum, open-air museum; ND – not applicable.	NID; MKiDN
UNESCO	T(1)	Object is listed by UNESCO: T – object entered; N – not entered.	NID
OPIS	T(254)	Name or additional description of the monument	NID; MKiDN
SCEN_10	T(1)	T – object is in the flood area in this scenario; N – object is not in the flood area in this scenario.	PGW WP/aMZPiMRP
SCEN_1	T(1)	T – object is in the flood area in this scenario; N – object is not in the flood area in this scenario.	PGW WP/aMZPiMRP
SCEN_02	T(1)	T – object is in the flood area in this scenario; N – object is not in the flood area in this scenario.	PGW WP/aMZPiMRP
SCEN_WZ	T(1)	T – object is in the flood area in this scenario; N – object is not in the flood area in this scenario.	PGW WP/aMZPiMRP
WERSJA	T(25)	Information on the version of maps of the MZPIMRP: 2015v1, 2017v1, 2019v1 etc.	PGW WP/aMZPiMRP

Table 28: Attribute structure of the culturally_valuable_areas layer

Culturally valuable objects

- layer: culturally_valuable_objects;
- type of layer: point;
- description: the layer contains fixed monuments, monuments included in the World Heritage List, extermination memorials, museums, open-air museums, libraries, archives;
- data source: MKiDN, NID;
- type of map: flood risk map.

Attribute	Field type	Description	Attribute source
ID_MIEJSC	T(38)	ID_PRNG of the city	GUGiK/BDOT10k
MIEJSC	T(254)	Name of the city	GUGiK/BDOT10k
NR_REJ	T(254)	Number from the register of monuments	NID
OBIEKT	T(2)	Object listed on the flood risk map: Z – real estate monument; P – extermination memorial; M – museum, open-air museum; B – library (national library resource); A – archive (national archive stock); ND – not applicable.	NID; MKiDN
UNESCO	T(1)	Object is listed by UNESCO: T – object entered; N – not entered.	NID
OPIS	T(254)	Name or additional description of the monument	NID; MKiDN
SCEN_10	T(1)	T – object is in the flood area in this scenario; N – object is not in the flood area in this scenario.	PGW WP/aMZPiMRP
SCEN_1	T(1)	T – object is in the flood area in this scenario; N – object is not in the flood area in this scenario.	PGW WP/aMZPiMRP
SCEN_02	T(1)	T – object is in the flood area in this scenario; N – object is not in the flood area in this scenario.	PGW WP/aMZPiMRP
SCEN_WZ	T(1)	T – object is in the flood area in this scenario; N – object is not in the flood area in this scenario.	PGW WP/aMZPiMRP
WERSJA	T(25)	Information on the version of maps of the MZPIMRP: 2015v1, 2017v1, 2019v1 etc.	PGW WP/aMZPiMRP

Table29: Attribute structure of the culturally_valuable_objects layer

Zoos

- layer: zoo_gardens;
- type of layer: polygon;
- description: the layer contains zoos;
- data source: GUGiK/BDOT10k;
- type of map: flood risk map.

Attribute	Field type	Description	Attribute source
ID_MIEJSC	T(38)	ID_PRNG of the locality	GUGiK/BDOT10k
MIEJSC	T(254)	Name of the locality	GUGiK/BDOT10k
NAZWA	T(254)	Name of the zoo garden	PGW WP/aMZPiMRP
SCEN_10	T(1)	T – object is in the flood area in this scenario; N – object is not in the flood area in this scenario.	PGW WP/aMZPiMRP
SCEN_1	T(1)	T – object is in the flood area in this scenario; N – object is not in the flood area in this scenario.	PGW WP/aMZPiMRP
SCEN_02	T(1)	T – object is in the flood area in this scenario; N – object is not in the flood area in this scenario.	PGW WP/aMZPiMRP
SCEN_WZ	T(1)	T – object is in the flood area in this scenario; N – object is not in the flood area in this scenario.	PGW WP/aMZPiMRP
WERSJA	T(25)	Information on the version of maps of the MZPIMRP: 2015v1, 2017v1, 2019v1 etc.	PGW WP/aMZPiMRP

Table 30: Attribute structure of the zoo_gardens layer

Cemeteries (potential pollution sources)

- layer: cemeteries;
- type of layer: polygon;
- description: the layer contains cemeteries;
- data source: GUGiK/BDOT10k;
- type of map: flood risk map.

Attribute	Field type	Description	Attribute source
ID_MIEJSC	T(38)	ID_PRNG of the locality	GUGiK/BDOT10k
MIEJSC	T (254)	Name of the locality	GUGiK/BDOT10k
POWIERZ	D	Cemetery area in ha	Calculations
SCEN_10	T(1)	T – object is in the flood area in this scenario; N – object is not in the flood area in this scenario.	PGW WP/aMZPiMRP
SCEN_1	T(1)	T – object is in the flood area in this scenario; N – object is not in the flood area in this scenario.	PGW WP/aMZPiMRP
SCEN_02	T(1)	T – object is in the flood area in this scenario; N – object is not in the flood area in this scenario.	PGW WP/aMZPiMRP
SCEN_WZ	T(1)	T – object is in the flood area in this scenario; N – object is not in the flood area in this scenario.	PGW WP/aMZPiMRP
WERSJA	T(25)	Information on the version of maps of the MZPIMRP: 2015v1, 2017v1, 2019v1 etc.	PGW WP/aMZPiMRP

Table 31: Attribute structure of cemeteries layer

Landfill sites (potential pollution sources)

- layer: landfill_sites;
- type of layer: polygon;
- description: the layer contains organized active or inactive landfills that are superficially viable in a scale of 1:10,000;
- data source: GUGiK/BDOT10k, PGW WP, WIOŚ;
- type of map: flood risk map.

Attribute	Field type	Description	Attribute source
TYP	T(2)	Type of waste to be landfilled: K – communal; P – industrial; M – mixed.	GUGiK/BDOT10k; PGW WP; WIOŚ
SCEN_10	T(1)	T – object is in the flood area in this scenario; N – object is not in the flood area in this scenario.	PGW WP/aMZPiMRP
SCEN_1	T(1)	T – object is in the flood area in this scenario; N – object is not in the flood area in this scenario.	PGW WP/aMZPiMRP
SCEN_02	T(1)	T – object is in the flood area in this scenario; N – object is not in the flood area in this scenario.	PGW WP/aMZPiMRP
SCEN_WZ	T(1)	T – object is in the flood area in this scenario; N – object is not in the flood area in this scenario.	PGW WP/aMZPiMRP
WERSJA	T(25)	Information on the version of maps of the MZPIMRP: 2015v1, 2017v1, 2019v1 etc.	PGW WP/aMZPiMRP

Table32: Attribute structure of the landfill_sites layer

Wastewater treatment and pumping stations (potential pollution sources)

- layer: wastewater_plants_pumping_stations;
- type of layer: point;
- description: the layer contains wastewater treatment plants and their entire infrastructure, e.g. sludge-deposition sites, waste disposal sites, etc.;
- data source: GUGiK/BDOT10k, WIOŚ, PGW WP, digitalization;
- type of map: flood risk map.

Attribute	Field type	Description	Attribute source
RODZAJ	T(1)	Potential pollution source: O – wastewater treatment plant; P – wastewater pumping station.	GUGiK/BDOT10k; WIOŚ; PGW WP
SCEN_10	T(1)	T – object is in the flood area in this scenario; N – object is not in the flood area in this scenario.	PGW WP/aMZPiMRP
SCEN_1	T(1)	T – object is in the flood area in this scenario; N – object is not in the flood area in this scenario.	PGW WP/aMZPiMRP
SCEN_02	T(1)	T – object is in the flood area in this scenario; N – object is not in the flood area in this scenario.	PGW WP/aMZPiMRP
SCEN_WZ	T(1)	T – object is in the flood area in this scenario; N – object is not in the flood area in this scenario.	PGW WP/aMZPiMRP
WERSJA	T(25)	Information on the version of maps of the MZPiMRP: 2015v1, 2017v1, 2019v1 etc.	PGW WP/aMZPiMRP

Table 33: Attribute structure of the wastewater_plants_pumping_stations layer

Localities

- layer: localities;
- type of layer: s;
- description: urban or rural settlement units;
- data source: GUGiK/BDOT10k;
- type of map: flood hazard map, flood risk map.

Attribute	Field type	Description	Attribute source
IdIIP_BT_I	T(50)	Local identifier BDOT10k	GUGiK/BDOT10k
IdIIP_BT_1	T(50)	Name space identifier BDOT10k	GUGiK/BDOT10k
IdIIP_BT_2	T(50)	BDOT10k version identifier. For sheets from cycle I not subject to update: "ND"	GUGiK/BDOT10k
ID_PRNG	T(38)	PRNG identifier	GUGiK/BDOT10k
NAZWA	T(254)	Name of the locality, according to PRNG	GUGiK/BDOT10k
RODZAJ	T(3)	Type of unit: Ms – city; Ws – village; In – part of city, part of village or other separated part of locality.	GUGiK/BDOT10k
TERYT	T(7)	TERYT of locality	GUS; GUGiK/BDOT10k
L_Z_10	LINT(6)	Number of inhabitants of localities in the flood hazard area for the 10% scenario	GUS
L_Z_1	LINT(6)	Number of inhabitants of localities in the flood hazard area for the 1% scenario	GUS
L_Z_02	LINT(6)	Number of inhabitants of localities in the flood hazard area for the 0.2% scenario	GUS
L_Z_WZ	LINT(6)	Number of inhabitants of localities in the flood hazard area for the scenario of total destruction of the embankment Q 1% (100 years)	GUS
OPIS	T(254)	Additional information	PGW WP/aMZPiMRP
WERSJA	T(25)	Information on the version of maps of the MZPiMRP: 2013v1, 2017v1, 2019v1 etc.	PGW WP/aMZPiMRP

Table34 Attribute structure of the localities layer

1.4 FINAL REMARKS

The spatial databases of FHM and FRM are stored in the *.shp format, in the flat rectangular coordinate system PL-1992.

Description of the additional designation adopted for text and digital attributes:

- Text attribute:
  - "ND" means not applicable, we use it if the feature does not exist;
  - "BD" – means no data, we use it if the feature exists but we do not have specific descriptive data.
- Digital attribute:
  - -9999 – means the value is unknown (no data);
  - -8888 – means the value is still to be measured;
  - -7777 – means the value does not apply to the field.

Field types used to describe the attribute structure:

T(a) – text, a – field length;
SINT(a) – short integer, a – field length;
LINT(a) – long integer, a – field length;
F(a,b) – floating-point number, a – field length, b – number of decimal places (float);
D – floating-point number, double precision (double).