

The Millennium Flood 1997 - Opole

Date: July 10, 1997, the culmination wave on the Oder (Odra) River near Opole.

Town: The city of Opole is located in the Opole Voivodeship (Province) in the west-south part of Poland. Inhabited by 128,208 people.¹ Characterized by specific spatial conditions. The old town was built on the right bank of the Oder, but it does not directly border it, but only the Młynówka Canal. The Oder river flowing today through the center of the city meanders and splits between two islands: Pasieka Island (area 45 ha) and Bolko Island (area 115 ha).

The Bolko Island has served the inhabitants of the city as a recreational area for many years. The first municipal park that could be used by the inhabitants of Opole was established in this area as early as 1913, in the interwar period - in 1918-1939 - a small zoo was established here, and in 1953 its place was taken over by the Opole Zoo (Adamska 2016).

The oldest part of Opole is linked with the Młynówka Island. From the 9th to the 13th century there was a wooden Slavic stronghold here, later a Piast castle was built here. From the 17th century on, the island began to be built up, and numerous crossings were established connecting the island with the city. In the years 1918-1939, a villa development was created (Adamska 2016).

In its history, Opole has been periodically hit by floods, one of the largest was the one from 1997, called the Millennium Flood, as a result of which the city of Opole was partially flooded and destroyed (Adamska 2016).

Reach of the Millennium Flood: Poland (flooded area 5000 km²), Czech Republic, eastern Germany, northwestern Slovakia, eastern Austria (Riegert in 2012).

Reasons for the occurrence: The flood was the result of heavy rainfall lasting 7 days from July 3. (Another important factor was the rainfall that occurred in the second half of June, that exceeded the long-term average - at the beginning of July, the ground was already heavily soaked with water (www.nik.pl). This resulted in a sharp rise in water levels in rivers (Riegert in 2012). The aforementioned rains occurred in two successive waves within a short period of time (Zalewski 2011).

The peak water level in Opole on July 11 was at the level of 777 cm between 10.00 and 14.00. The water flow at that time was 3500 m³/s. It broke then another record water level recorded in 1813 (then the height was 604 cm). In Opole, the high water level lasted 17 days (Międzynarodowa Komisja Ochrony Odry przed Zanieczyszczeniem 1999).

Run of events: The flood in Opole began on July 10. The Zaodrze district was flooded, the buildings of the islands: Pasięka, Bolko, Racibórz, as well as the districts of Półwieś and Szczepanowice, Ostróg, Płonia and part of Śródmieście were partially destroyed. The railway station and the post office were destroyed.

Curse of the Flood:

July 6 - announcement of the alert by the Opole Voivode.

July 7 - the first preventive measures are already underway in the city.

July 8 - on the Młynówka Canal, dangerous blockages of broken trees and shrubs form under the bridges, they are removed by the services.

July 9 - further action on the Młynówka Canal, firefighters are pumping out water from the first flooded rooms. At the end of the day, in the evening, the first steps are taken to evacuate people from the flood-prone areas.

July 9/10 – advent of a great flood wave, breaking of flood banks:

- near the "Metalchem" factory

- at 4.30 am, breaking the embankments near the town of Boguszyce. The first district of Opole - Zaodrze - is flooded. At that time, a makeshift helipad was built at the "Gwardia" stadium in Opole. All rescue units from the city equipped with anti-flood equipment are sent to rescue operations. During this time, 3,500 people were evacuated.

Food, drinking water and medicines were organized for people who could not leave their homes as a result of the flood and were not evacuated.

Rescue units from all over Poland were mobilized to remove the effects of the flood. The "Flood" action lasted from 13.07.1997 to 02.08.1997 (www.kmpsp.opole.pl).

The second wave of rainfall began on July 18 and lasted until July 22 (www.nik.pl).

On July 18, 1997, Aleksander Kwaśniewski, the then President of Poland, announced the day of national mourning.

Material losses: PLN 1,237 million (Piepiora 2013). 87 thousand ha of land were flooded, 26 thousand buildings were destroyed or damaged, 11.8 km of flood embankments were also destroyed, 40 thousand people were evacuated (data concern the entire Opole Voivodeship) (Międzynarodowa Komisja Ochrony Odry przed Zanieczyszczeniem 1999).

Lesson learned from the Flood:

After the flood of 1997, it was shown that the then-existing flood protection system of the Oder catchment was insufficient (Lechowska 2017).

At that time, many private individuals and institutions from Poland and abroad helped those who suffered as a result of the Millennium Flood. Polish Television organized a fundraiser, "TV viewers for the flooded", an album recorded by the greatest Polish artists of the 1990s was given in thanks for the contributions.

The song "My and your hope" by the band Hej became a symbolic hymn of the action.

(<https://www.youtube.com/watch?v=f5hooj3qKM4>)

Adamska M., 2016, The Odra river's islands of Opole - Bolko and Pasięka. History, spatial development and landscape values, Dissertations of cultural landscape commission, 33/137-153

Lechowska E., 2017, Ryzyko powodziowe w miastach nadodrzańskich w kontekście sposobu zagospodarowania obszarów zalewowych, Folia Geographica socio-oeconomica, 29/65-92

Międzynarodowa Komisja Ochrony Odry przed Zanieczyszczeniem, 1999, Dorzecze Odry - Powódź 1997, Wrocław

Najwyższa Izba Kontroli, Departament ochrony środowiska i budownictwa, Departament obrony narodowej i bezpieczeństwa państwa, 1998, Informacja o wynikach kontroli stanu zabezpieczenia przeciwpowodziowego kraju oraz przebiegu działań ratowniczych w czasie powodzi na terenach południowej i zachodniej Polski w lipcu 1997 r., Warszawa [www.nik.gov.pl › pobierz,px_1998023.pdf,typ,k.pdf](http://www.nik.gov.pl/pobierz,px_1998023.pdf,typ,k.pdf)

Piepiora Z., 2013, *Preventing of Negative Consequences of Natural Disasters in Opole Voivodeship - Financial Aspects*, Problemy rozwoju regionalnego, 281/ 113-120

Riegert D., Śłosorz Z., Radwan K., Rakowska J., Porycka B., Abgarowicz I., Suchorab P., 2012, *Doraźne metody ochrony stosowane podczas powodzi ze szczególnym uwzględnieniem rękawów przeciwpowodziowych*, Centrum Naukowo – Badawczy Ochrony Przeciwpowodziowej im. Józefa Tuliszkowskiego Państwowy Instytut Badawczy, Józefów

[www.kmpsp.opole.pl http://kmpsp.opole.pl/pliki/powodz.pdf](http://www.kmpsp.opole.pl/pliki/powodz.pdf)

Zalewski J., Odra w kontekście sytuacji zagrożenia powodziowego i awarii budowlanych,
[w:] Awarie budowlane: zapobieganie, diagnostyka, naprawy, rekonstrukcje: XXV
konferencja Poliarchia 2(3)/2014 System ochrony przeciwpowodziowej... 31 naukowo -
techniczna, Szczecin–Międzyzdroje, 24 -27 maja 2011, t. 1, red. M. Kaszyńska, Szczecin
2011.