



TGM WRI

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About TGM WRI I.

The T.G. Masaryk Water Research Institute (TGM WRI), Prague, Czech Republic, is the direct successor of the State Hydrological Institute, set up in 1919, on the basis of a high scientific level, national interest and the political attention traditionally devoted to managing and treating water in the Czech Republic.

Its scope of work consists in research, conceptual, professional and methodological activities, inclusive of forming and operating information systems, further in protecting the quality and amount of surface and ground waters, and in their usage in technical, economic and other relations and interactions. Institute provides public administration with objective and professional services, in particular for creating and implementing state policies in the water area with regard to the Water Act.

About TGM WRI II.



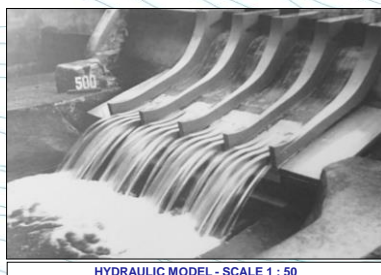
With effect from 1 January 2007, according to the Act No. 341/2005, the TGM WRI has become a public research institution. This new status brings a greater 'academic' freedom and independence, and, simultaneously, a greater economic independence in the sense of the loss of a relative certainty of receiving state funding, as well as in the sense of the possibility of gaining commercial orders and entering the market.

The organizational and territorial structure of the Institute corresponds to fulfilling the tasks in the areas of research and support for the state and public administration. Six research branches in Prague and branches in Brno and Ostrava safeguard the activities of the TGM WRI.

Branch of Hydraulics, Hydrology and Hydrogeology



The Branch of Hydraulics, Hydrology and Hydrogeology is engaged in professional solution of problems from the field of surface and ground water hydraulics and hydrology. It is concerned, among others, with quantifying water sources and with water movement studies in natural and man-made environments.



HYDRAULIC MODEL - SCALE 1 : 50



HYDRAULIC STRUCTURE – OVERFLOW
DURING FLOOD, 1954

Branch of Water Quality and Reference Laboratories

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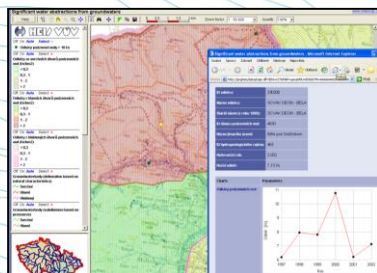
The Branch of Water Quality and Reference Laboratories focuses on processes going on in the hydrosphere with a view to physical, chemical and biological characteristics. Its departments carry out research into the influence and effects of anthropogenic factors on water in closed natural cycles with their impacts on natural and landscape systems.



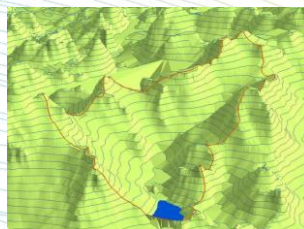
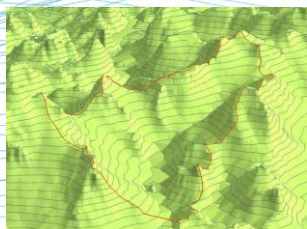
Branch of Water Protection and Informatics

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The objectives of the Branch of Water Protection and Informatics, which can be divided into four areas, have the character of permanent activities for supporting the state administration's performance, with a significant participation in the EU water legislation.



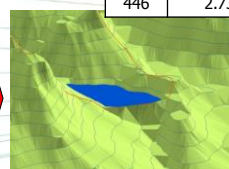
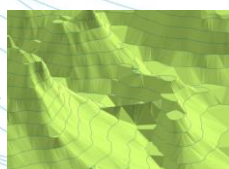
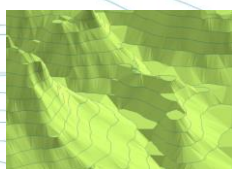
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Cubage and shore line (flooded area) calculation
for each level

3D modelling of water reservoir's dam

level	capacity (m³)	area (km²)
440	687.992	0,155
444	956.459	0,239
446	2.736.597	0,451



Digital terrain model
without the dam

Digital terrain
model with the
dam

Maximum water level

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Branch of Water Technology

The Branch of Water Technology is involved in solving problems from the area of drinking water treatment and the technological cleaning of waste water and the related issues (sampling techniques for surface, ground and waste water, analyses of waste water and sludge, technological tests).



Domestic WWTPs Efficiency Trials

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Centre for Waste Management

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The Centre for Waste Management was established on 1 September 2001 as an informative, professional and research background for the state and public administration. A broad spectrum of activities includes wastes, wastewater treatment plant sludge, equipment containing PCB/PCT, water transport in waste management, registration and the appropriate legislation.



Branch of Ecology and Ecosystems Protection

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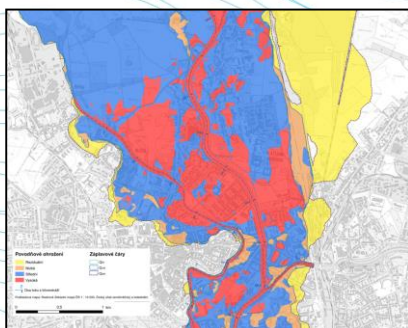
The Branch of Ecology and Ecosystems Protection was established, on 1 January 2008, for the purpose of going ahead with research in the area of water ecosystems and water-fixed communities, e.g. ichthyology, hydrobiology, and biostatistical methods for assessing the state of surface waters.



Brno Branch of the Institute

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The Brno Branch concentrates research, conceptual and professional activities on protecting water quality and on the quantity of surface and ground waters, including their ecosystems and rational usage.



Ostrava Branch of the Institute

The Ostrava Branch investigates the changes in water quality in the watercourses and reservoirs in the Oder River basin, assessing and predicting trends in these changes.



THANK YOU