



Water Management Balance of Surface Water Quantity



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Legislation base

Basic legislation:

- Act No. 254/2001 Coll., on water and amending certain Acts (Water Act), as amended
- Decree 431/2001 Coll., of the water balance content and method of preparation and the data for water balance
- Guidance of Ministry of Agriculture no.25248/2002-6000 for the compilation of water management balance river basin districts

System of Water Balance

Water Management Balance is a component of Water Balance (§ 21 of Water Act) and serves to:

- Detection and assessment of surface and groundwater status
- Providing data for performance of public administration under the Water Act
- For Water Management Planning
- Providing information to the public

Water Balance consists:

- Hydrological Balance
- **Water Management Balance**

System of Water Balance

➤ **Hydrological Balance**

Compares the inflow and outflow of water and changes in water storage in the river basin, territory or in the water body for a given time interval and is compiled by the Czech Hydrometeorological Institute.

➤ **Water Management Balance**

Compares the requirements for surface water and groundwater consumption and waste water discharges with a usable capacity of water resources from the aspects of water quantity and quality and their ecological status.

Water Management Balance

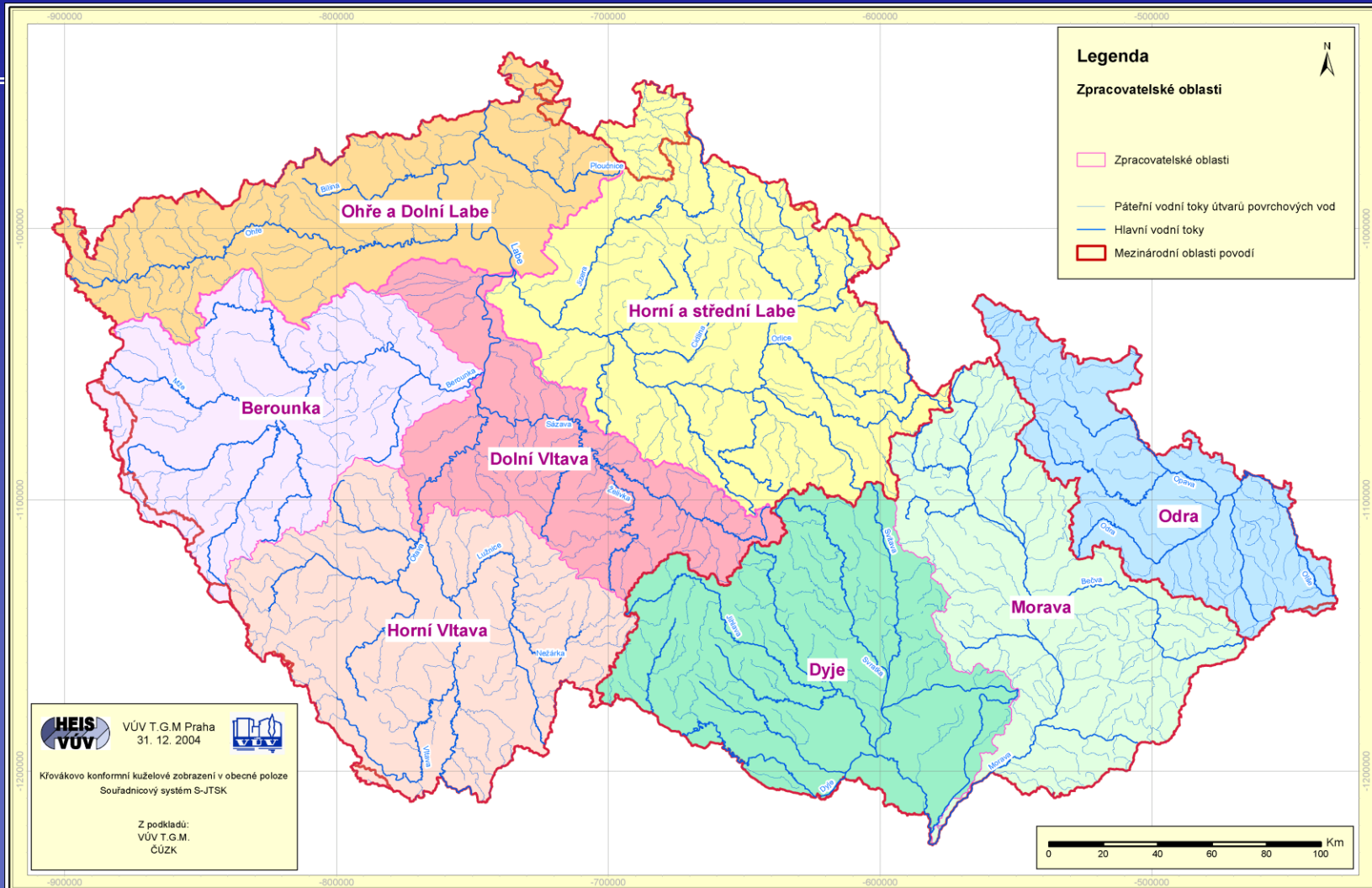
Results of Water Management Balance are divided into individual reports according to particular river basin districts and contain:

- **surface water quantity assessment,**
- surface water quality assessment,
- groundwater quantity and quantity assessment,
- assessment of water discharges into surface water.

Water balance including surface water management balance shall be compiled every year for the last calendar year by 30th September of following calendar year.

(§1 Article 3 Decree No. 431/2001 Coll.,)

River Basin (Sub)Districts



Water Management Balance Compilation

Surface water management balance is compiled by River Basin Administrators – State Enterprises of Povodi.

Input data:

- Data reported by subjects indicated in Water Act concerning surface and groundwater abstraction, waste water and mine water discharges in case when the quantity exceeds 6 000m³/yearly or 500m³/monthly and a surface water accumulation which volume exceeds 1 000 000m³,
- Results of Hydrological Balance provided by Czech Hydrometeorological Institute,
- (Data concerning surface water quality).

Water Management Balance Compilation

Results of water management balance are available for public on web sites of River Basin Administrators – State Enterprises of Povodi, by one month after their compilation at the latest, it means by 31th October.

Data reported by subjects indicated in Water Act and data identified by River Basin Administrator are components of Information System of Public Administration and are every year saved in **Water Management Information Portal** Ministry of Agriculture (www.voda.gov.cz), by 30th June of following calendar year at the latest.

Water Management Balance Compilation

Blank form for filling
e.g. Surface water abstraction

Strana 9168 Sbírnka zákonů č. 431 / 2001 Částka 162

Příloha č. 2 k vyhlášce č. 431/2001 Sb.

ROK XXXX

Odběr povrchové vody -

název odběru:

místo odběru:

druh ekonomické činnosti:

Trvalý pobyt-sídlo povinného subjektu:

Trvalý pobyt-sídlo provozovatele:

IČ:
OKEČ:

IČ:
OKEČ:

1	Identifikační číslo odběru povrchové vody	
02	Horní maticové číslo úseku toku	Číslo polohy na úseku toku
03	Číslo hydrologického pořadí	
04	Název vodního toku	
05	Říční kilometr	
06	Břeh	<input type="checkbox"/> Levý <input type="checkbox"/> Střed <input type="checkbox"/> Pravý
07	Okres / Obec / Katastrální území	
08	Způsob stanovení hodnot odběru	<input type="checkbox"/> měření <input type="checkbox"/> výpočet <input type="checkbox"/> odvození <input type="checkbox"/> odhad
09	Kóta odběrného zařízení v m n.m. (Balt po vyrovnání)	
10	Rozhodnutí o povolení k odběru povrchové vody vydal: _____ dne: _____ pod č.j.: _____ l/s max. l/s v množství: _____ tis. m ³ /měs _____ tis. m ³ /rok pro účel: _____	
11	Rozhodnutí o stanovení ochranného pásma vodního zdroje vydal: _____ dne: _____ pod č.j.: _____	
12	Žádáme o přiložení platného rozhodnutí o povolení k odběru povrchové vody	Ano / Ne
13	Žádáme o přiložení platného rozhodnutí o stanovení ochranného pásma vodního zdroje	Ano / Ne
14	V příloze se předává kopie mapy k zakreslení místa odběru	Ano / Ne

Vytiskuje:
Telefon:
Fax:
e-mail:

Datum:
Razítko a podpis:

Část A k tiskopisu Odběr povrchové vody

Identifikační číslo
odběru povrchových vod

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ODBĚR POVRCHOVÉ VODY (v tis. m³/měsíc – zaokrouhлено na jedno desetinné místo)

rok ^{*)}	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	celkem
15													
16													
17 výhled 5 let													

POČET HODIN ODBĚRU (zaokrouhлено na celé hodiny)

rok ^{*)}	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	celkem
18													

VYUŽITÍ ODEBRANÉ VODY (v tis. m³ z celkového množství)

	pro průtočné chlazení	pro cirkulační chlazení	pro závlahy	pro živočišnou výrobu	pro průmyslovou technologii	pro vodovody (veř. spotřebu)	ostatní odběry	celkem
19								

POTŘEBA VODY (v tis. m³ z celkového množství)

20	množství vody dodané konečnému uživateli, bez spotřeby vody při úpravě a beze ztrát v rozvodech	
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^{*)} vyplní správce povodí

Částka 162

Sbírnka zákonů č. 431 / 2001

Strana 9169

Surface Water Quantity Balance Assessment

Surface water quantity assessment shall be pursued in selected checking profiles within river basins, contains comparison of surface water quantitative states/conditions according to purpose during given time period and determines profiles with tight and passive balance.

Water Management Balance consists of:

- WMB of Last year
- WMB of Current state
- WMB of Future state

Surface Water Quantity Balance Assessment

Water Management Balance of Last Year

- Last calendar year assessment shall be compiled every year and consists of three parts:
 - available surface water sources,
 - requirements on water sources,
 - surface water quantity assessment.
- It describes surface water management including various types of usage and identifies reasons of tight or passive balance states and problems in permitted water usage and contains also list of:
 - measured surface water flows in selected gauges,
 - volume changes in reservoirs.

Surface Water Quantity Balance Assessment

Water Management Balance of Last Year

➤ Available surface water sources

This part contains data about:

- rivers
- reservoirs
- water transfers
- other water sources

Surface Water Quantity Balance Assessment

Water Management Balance of Last Year

➤ Requirements on water sources

This part contains data concerning required minimum discharges in rivers and data concerning volumes of actually abstracted surface water and groundwater and volumes of discharged water.

- Minimum discharges in rivers
- Water abstraction – water discharge

Surface Water Quantity Balance Assessment

Water Management Balance of Last Year

➤ Surface water quantity assessment

This part contains data concerning balance assessment of last year. The assessment is provide separately for rivers, reservoirs, checking (balance) profiles and minimum discharges.

- **rivers** *(balance assessment is calculated by means of summation curve of river influencing in longitudinal section)*
- **reservoirs** *(change of flows within water reservoir is calculated from differences of volumes in reservoir at the beginning of assessed month and at the beginning of followed month - the indicated volume is then transfered into flow magnitude)*

Surface Water Quantity Balance Assessment

Water Management Balance of Last Year

➤ Surface water quantity assessment

- for checking profiles

In checking profiles are assessed following balance states:

- BS1 for example QMO.....>..... Q330d
- BS2 for exampleO330d.....>.....QMO.....>..... Q355d
- BS3 for exampleQ355d.....>.....QMO.....>..... Q364d
- BS4 for exampleQ364d.....>.....QMO
- BS5 for exampleMQ (MZP) >.....QMO

- for minimum discharges

(comparison of requirements for maintenance of minimum discharges with average monthly discharges in checking profiles. Essential is the analysis concerning not observing of minimum discharge and especially determined minimum residual discharges (§ 36 of Water Act)).

Surface Water Quantity Balance Assessment

Water Management Balance of Last Year

Selected checking profiles are especially:

- profiles selected from state gauges network influenced by water management,
- closing profiles on important rivers,
- selected profiles in state frontier rivers.

List of selected checking profiles, where the surface water quantity assessment was compiled, is always the integral part of surface water quantity assessment results.

Surface Water Quantity Balance Assessment

Water Management Balance of Current State

Current water balance state assessment is compiled according to relevant demands especially on the basis of results last year water quantity assessment in selected profiles and compares:

- actual volumes of abstracted and discharged water in last calendar year,
- volumes of abstracted and discharged water done in the valid permissions
- with natural flows in rivers and influenced outflows from reservoirs (on the basis of simulated management) during the determined time period.

Surface Water Quantity Balance Assessment

Water Management Balance of Future State

- Future water balance state assessment shall be compiled every six years and compares quantity of future water abstractions and water discharges with natural flows in rivers and influenced outflows from reservoirs (on the basis of simulated management) during the given time period. Last water management balance of future surface water quantity state was compiled in 2006 with end point in 2015.



Thank you for your attention...

