

# Evaluated environmental indicators - Trenčín region

## GROUNDWATER

$I_{ERgw}$  - index of environmental risk for groundwater;

groundwater quality: no pollution 0; low pollution  $>0 \leq 1$ ; medium pollution  $>1 \leq 5$ ; high pollution  $>5 \leq 10$ ; very high pollution  $>10$ ;

excess of limits for drinking water for Ca, Mg, Ca+Mg - green color value below lower limit, red color higher than upper limit

limit value: NV MZ SR 496/2010

| municipality                         | environmental indicators exceeding limit values | $I_{ERgw}$ | water quality    |
|--------------------------------------|---|------------|------------------|
| <b>district Bánovce nad Bebravou</b> |   |            |                  |
| Bánovce nad Bebravou                 | Mg, Mn, NO <sub>3</sub>                         | 0.472      | low pollution    |
| Borčany                              | Mg, NO <sub>3</sub>                             | 0.746      | low pollution    |
| Brezolupy                            |   | 0.000      | no pollution     |
| Chudá Lehota                         | Mg, Fe, Mn, NO <sub>3</sub>                     | 1.253      | medium pollution |
| Čierna Lehota                        |   | 0.000      | no pollution     |
| Cimenná                              | Fe, Mn  | 4.591      | medium pollution |
| Dežerice                             | Mg, NO <sub>3</sub>                             | 0.211      | low pollution    |
| Dolné Naštice                        | Mg, Mn, NO <sub>3</sub>                         | 0.284      | low pollution    |
| Dubnička                             |   | 0.000      | no pollution     |
| Dvorec                               | NO <sub>3</sub>                                 | 0.135      | low pollution    |
| Haláčovce                            | NO <sub>3</sub>                                 | 0.037      | low pollution    |
| Horné Naštice                        | Mn  | 0.368      | low pollution    |
| Krásna Ves                           |   | 0.000      | no pollution     |
| Kšinná                               |   | 0.000      | no pollution     |
| Libichava                            | Mn, NO <sub>3</sub>                             | 1.127      | medium pollution |
| Lútov                                | Mg  | 0.000      | no pollution     |
| Malá Hradná                          | Fe, Mn, NO <sub>3</sub>                         | 2.364      | medium pollution |
| Malé Hoste                           | Mn  | 1.822      | medium pollution |
| Miezgovce                            |   | 0.000      | no pollution     |
| Nedašovce                            |   | 0.000      | no pollution     |
| Omastiná                             |   | 0.000      | no pollution     |
| Otrhánky                             | NO <sub>3</sub>                                 | 0.372      | low pollution    |
| Pečeňany                             | Mg, NO <sub>3</sub>                             | 0.637      | low pollution    |
| Pochabany                            | Mn  | 0.913      | low pollution    |
| Podlužany                            | Mg  | 0.000      | no pollution     |
| Pravotice                            | NO <sub>3</sub>                                 | 0.057      | low pollution    |
| Prusy                                | Mg  | 0.000      | no pollution     |
| Ruskovce                             | Mn, NO <sub>3</sub>                             | 0.991      | low pollution    |
| Rybany                               | Ca+Mg, Mg, NO <sub>3</sub>                      | 0.456      | low pollution    |
| Šípkov                               |   | 0.000      | no pollution     |
| Šišov                                | Mg, Fe, Mn, NO <sub>3</sub>                     | 1.301      | medium pollution |
| Slatina nad Bebravou                 |   | 0.000      | no pollution     |
| Slatinka nad Bebravou                |   | 0.000      | no pollution     |
| Timoradza                            |   | 0.000      | no pollution     |

## SOIL

$I_{ERs}$  - index of environmental risk for soil;

soil quality: no pollution 0; low pollution  $>0 \leq 1$ ; medium pollution  $>1 \leq 5$ ; high pollution  $>5 \leq 10$ ; very high pollution  $>10$

limit value: law No. 220/2004, sandy-loamy, loamy soil type

| environmental indicators exceeding limit values | $I_{ERs}$ | soil quality     |
|---|-----------|------------------|
| Cr  | 0.182     | low pollution    |
| Cr  | 0.212     | low pollution    |
| Cd, Co  | 0.983     | medium pollution |
| Cr  | 0.198     | low pollution    |
| Cr  | 0.081     | low pollution    |
| Cr  | 0.263     | low pollution    |
| Cr  | 0.278     | low pollution    |
| Co, Cr  | 0.245     | low pollution    |
| Cr  | 0.056     | low pollution    |
| Cr  | 0.274     | low pollution    |
| Cr  | 0.255     | low pollution    |
| Cr  | 0.014     | low pollution    |
| Cr  | 0.212     | low pollution    |
|   | 0.000     | no pollution     |
| Cr  | 0.192     | low pollution    |
| Cr  | 0.080     | low pollution    |
| Cr  | 0.298     | low pollution    |
| Cr  | 0.206     | low pollution    |
| Cd, Co  | 1.001     | high pollution   |
| Cd, Co, Cr                                      | 1.018     | high pollution   |
| Cr  | 0.069     | low pollution    |
| Cr  | 0.229     | low pollution    |
| Cr  | 0.223     | low pollution    |
| Cr  | 0.209     | low pollution    |
| Cr  | 0.183     | low pollution    |
| Cd, Co, Cr                                      | 0.804     | medium pollution |
| Cr  | 0.173     | low pollution    |
| Cr  | 0.311     | low pollution    |
| Cr  | 0.150     | low pollution    |
| Cr  | 0.156     | low pollution    |
| Cr  | 0.183     | low pollution    |
| Cr  | 0.123     | low pollution    |
| Cr  | 0.243     | low pollution    |
| Cr  | 0.153     | low pollution    |

# Evaluated environmental indicators - Trenčín region

## GROUNDWATER

$I_{ERgw}$  - index of environmental risk for groundwater;

groundwater quality: no pollution 0; low pollution  $>0 \leq 1$ ; medium pollution  $>1 \leq 5$ ; high pollution  $>5 \leq 10$ ; very high pollution  $>10$ ;

excess of limits for drinking water for Ca, Mg, Ca+Mg - green color value below lower limit, red color higher than upper limit

limit value: NV MZ SR 496/2010

|                     |                     |       |                  |
|---------------------|---------------------|-------|------------------|
| Trebichava          |                     | 0.000 | no pollution     |
| Uhrovec             | Mg                  | 0.000 | no pollution     |
| Uhrovské Podhradie  |                     | 0.000 | no pollution     |
| Veľké Chlievany     | Mg, NO <sub>3</sub> | 0.152 | low pollution    |
| Veľké Držkovce      | Fe, Mn              | 3.504 | medium pollution |
| Veľké Hoste         | Mn, NO <sub>3</sub> | 0.967 | low pollution    |
| Vysočany            |                     | 0.000 | no pollution     |
| Žitná - Radiša      |                     | 0.000 | no pollution     |
| Zlatníky            | Ca, Mn              | 0.422 | low pollution    |
| district Ilava      |                     |       |                  |
| Bohunice            |                     | 0.000 | no pollution     |
| Bolešov             |                     | 0.000 | no pollution     |
| Borčice             |                     | 0.000 | no pollution     |
| Červený Kameň       |                     | 0.000 | no pollution     |
| Dubnica nad Váhom   |                     | 0.000 | no pollution     |
| Dulov               |                     | 0.000 | no pollution     |
| Horná Poruba        |                     | 0.000 | no pollution     |
| Ilava               |                     | 0.000 | no pollution     |
| Kameničany          |                     | 0.000 | no pollution     |
| Košeca              |                     | 0.000 | no pollution     |
| Košecké Podhradie   |                     | 0.000 | no pollution     |
| Krivoklát           |                     | 0.000 | no pollution     |
| Ladce               |                     | 0.000 | no pollution     |
| Mikušovce           |                     | 0.000 | no pollution     |
| Nová Dubnica        |                     | 0.000 | no pollution     |
| Pruské              |                     | 0.000 | no pollution     |
| Sedmerovec          |                     | 0.000 | no pollution     |
| Slavnica            |                     | 0.000 | no pollution     |
| Tuchyňa             |                     | 0.000 | no pollution     |
| Vŕatské Podhradie   |                     | 0.000 | no pollution     |
| Zliechov            |                     | 0.000 | no pollution     |
| district Myjava     |                     |       |                  |
| Brestovec           |                     | 0.000 | no pollution     |
| Brezová pod Bradlom | Mg                  | 0.000 | no pollution     |
| Bukovec             | Mg                  | 0.000 | no pollution     |
| Chvojnica           | Mn                  | 0.390 | low pollution    |

## SOIL

$I_{ERs}$  - index of environmental risk for soil;

soil quality: no pollution 0; low pollution  $>0 \leq 1$ ; medium pollution  $>1 \leq 5$ ; high pollution  $>5 \leq 10$ ; very high pollution  $>10$

limit value: law No. 220/2004, sandy-loamy, loamy soil type

|                |       |                  |
|----------------|-------|------------------|
|                | 0.000 | no pollution     |
| Cd, Co         | 0.724 | medium pollution |
| Cr             | 0.119 | low pollution    |
| Cr             | 0.261 | low pollution    |
| Cr             | 0.286 | low pollution    |
| Cr             | 0.191 | low pollution    |
| Cd, Co         | 1.188 | high pollution   |
|                | 0.000 | no pollution     |
| Cr             | 0.125 | low pollution    |
| Cr             | 0.111 | low pollution    |
| Cr             | 0.139 | low pollution    |
| Cr             | 0.171 | low pollution    |
|                | 0.000 | no pollution     |
| Co, Cr         | 0.122 | low pollution    |
| Cr             | 0.158 | low pollution    |
| Cr, F, Ni      | 0.290 | low pollution    |
| Cr             | 0.133 | low pollution    |
| Cr             | 0.165 | low pollution    |
| Cr             | 0.145 | low pollution    |
| Cr, F          | 0.098 | low pollution    |
|                | 0.000 | no pollution     |
| Cr             | 0.228 | low pollution    |
| Cr             | 0.032 | low pollution    |
| Cd, Co, Cr     | 1.707 | high pollution   |
| Cr             | 0.119 | low pollution    |
| Cr             | 0.169 | low pollution    |
| Cr             | 0.137 | low pollution    |
| Cr             | 0.134 | low pollution    |
|                | 0.000 | no pollution     |
| Cd, F          | 0.498 | low pollution    |
| Cr             | 0.209 | low pollution    |
| Cd, Co, Cr, Ni | 1.810 | high pollution   |
| Cr, Ni         | 0.783 | medium pollution |
| Cr             | 0.315 | low pollution    |

# Evaluated environmental indicators - Trenčín region

## GROUNDWATER

$I_{ERgw}$  - index of environmental risk for groundwater;

groundwater quality: no pollution 0; low pollution  $>0 \leq 1$ ; medium pollution  $>1 \leq 5$ ; high pollution  $>5 \leq 10$ ; very high pollution  $>10$ ;

excess of limits for drinking water for Ca, Mg, Ca+Mg - **green** color value below lower limit, **red** color higher than upper limit

limit value: NV MZ SR 496/2010

|                               |                         |       |                  |
|-------------------------------|-------------------------|-------|------------------|
| Hrašné                        | Mg, Fe                  | 0.036 | low pollution    |
| Jablonka                      |                         | 0.000 | no pollution     |
| Košariská                     | Mg                      | 0.000 | no pollution     |
| Kostolné                      | Mg                      | 0.000 | no pollution     |
| Krajné                        |                         | 0.000 | no pollution     |
| Myjava                        |                         | 0.000 | no pollution     |
| Podkylava                     | Mg                      | 0.000 | no pollution     |
| Polianka                      |                         | 0.000 | no pollution     |
| Poriadie                      |                         | 0.284 | low pollution    |
| Priepasné                     | Mg                      | 0.000 | no pollution     |
| Rudník                        | Mn                      | 0.081 | low pollution    |
| Stará Myjava                  |                         | 0.000 | no pollution     |
| Vrbovce                       | Mn                      | 0.132 | low pollution    |
| district Nové Mesto nad Váhom |                         |       |                  |
| Beckov                        | Mn, NO <sub>2</sub>     | 0.565 | low pollution    |
| Bošáca                        | NO <sub>2</sub> ,       | 0.425 | low pollution    |
| Brunovce                      | Mg, Mn                  | 0.244 | low pollution    |
| Bzince pod Javorinou          |                         | 0.000 | no pollution     |
| Čachtice                      | Mg, Mn, NO <sub>3</sub> | 0.511 | low pollution    |
| Častkovce                     | Mg, Mn                  | 1.709 | medium pollution |
| Dolné Srnie                   | NO <sub>3</sub>         | 0.326 | low pollution    |
| Haluzice                      | NO <sub>2</sub>         | 1.651 | medium pollution |
| Hôrka nad Váhom               |                         | 0.000 | no pollution     |
| Horná Streda                  | Mg, Mn                  | 1.144 | medium pollution |
| Hrachovište                   | Mg, Mn, NO <sub>3</sub> | 0.456 | low pollution    |
| Hrádok                        |                         | 0.000 | no pollution     |
| Kalnica                       | Fe, Mn                  | 1.426 | medium pollution |
| Kočovce                       | Mg                      | 0.000 | no pollution     |
| Lubina                        |                         | 0.000 | no pollution     |
| Lúka                          | Mg                      | 0.000 | no pollution     |
| Modrová                       | Mg, Mn                  | 0.325 | low pollution    |
| Modrovka                      | Mg, Mn                  | 0.995 | low pollution    |
| Moravské Lieskové             |                         | 0.000 | no pollution     |
| Nová Bošáca                   |                         | 0.000 | no pollution     |
| Nová Lehota                   |                         | 0.000 | no pollution     |
| Nová Ves nad Váhom            | Mg                      | 0.000 | no pollution     |

## SOIL

$I_{ERs}$  - index of environmental risk for soil;

soil quality: no pollution 0; low pollution  $>0 \leq 1$ ; medium pollution  $>1 \leq 5$ ; high pollution  $>5 \leq 10$ ; very high pollution  $>10$

limit value: law No. 220/2004, sandy-loamy, loamy soil type

|                |       |                  |
|----------------|-------|------------------|
| Cr             | 0.330 | low pollution    |
| Cr             | 0.317 | low pollution    |
| Cd, Co, Ni     | 2.324 | high pollution   |
| Cr             | 0.380 | low pollution    |
| Cr             | 0.401 | low pollution    |
| Cr             | 0.316 | low pollution    |
| Cr             | 0.704 | medium pollution |
| Cr             | 0.310 | low pollution    |
| Cr             | 0.203 | low pollution    |
| Cd, Co, Cr, Ni | 1.607 | high pollution   |
| Cr             | 0.263 | low pollution    |
| Cr             | 0.122 | low pollution    |
| Cr             | 0.293 | low pollution    |
| Cr             | 0.221 | low pollution    |
| Cr             | 0.265 | low pollution    |
| Cr             | 0.233 | low pollution    |
| Cr             | 0.404 | low pollution    |
| Cr             | 0.277 | low pollution    |
| Cr             | 0.307 | low pollution    |
| Cr             | 0.304 | low pollution    |
| Cr             | 0.266 | low pollution    |
| Cr             | 0.147 | low pollution    |
| Cr             | 0.258 | low pollution    |
| Cr             | 0.295 | low pollution    |
| Cr             | 0.169 | low pollution    |
| Cr             | 0.129 | low pollution    |
| Cr             | 0.204 | low pollution    |
| Cr             | 0.289 | low pollution    |
| Cr             | 0.193 | low pollution    |
| Cr             | 0.175 | low pollution    |
| Cr             | 0.213 | low pollution    |
| Cr             | 0.335 | low pollution    |
| Cr             | 0.175 | low pollution    |
| Cr             | 0.137 | low pollution    |
| Cr             | 0.169 | low pollution    |

# Evaluated environmental indicators - Trenčín region

## GROUNDWATER

$I_{ERgw}$  - index of environmental risk for groundwater;

groundwater quality: no pollution 0; low pollution  $>0 \leq 1$ ; medium pollution  $>1 \leq 5$ ; high pollution  $>5 \leq 10$ ; very high pollution  $>10$ ;

excess of limits for drinking water for Ca, Mg, Ca+Mg - green color value below lower limit, red color higher than upper limit

limit value: NV MZ SR 496/2010

|                         |   |        |                     |
|-------------------------|---|--------|---------------------|
| Nové Mesto nad Váhom    |   | 0.000  | no pollution        |
| Očkov                   | Ca+Mg, Mg, Mn   | 2.009  | medium pollution    |
| Pobedim                 | Ca+Mg, Mg, Fe, Mn                                       | 4.031  | medium pollution    |
| Podolie                 | Ca+Mg, Mg, Mn   | 1.878  | medium pollution    |
| Potvorice               |   | 0.000  | no pollution        |
| Považany                |   | 0.000  | no pollution        |
| Stará Lehota            |   | 0.000  | no pollution        |
| Stará Turá              |   | 0.000  | no pollution        |
| Trenčianske Bohuslavice | Mn, NO <sub>2</sub>                                     | 1.337  | medium pollution    |
| Vaďovce                 | Mg, Mn  | 0.391  | low pollution       |
| Višňové                 | Mg, NO <sub>3</sub>                                     | 0.259  | low pollution       |
| Zemianske Podhradie     |   | 0.000  | no pollution        |
| district Partizánske    |   |        |                     |
| Bošany                  | ChSK <sub>Mn</sub> , Ca+Mg, Mg, Fe, Mn, NO <sub>3</sub> | 5.885  | high pollution      |
| Brodzany                | Mg  | 0.000  | no pollution        |
| Chynorany               | Ca+Mg, Mg, Fe, Mn                                       | 2.601  | medium pollution    |
| Hradište                | Mg  | 0.000  | no pollution        |
| Ješkova Ves             |   | 0.000  | no pollution        |
| Klátova Nová Ves        | Mn  | 0.083  | low pollution       |
| Kolačno                 |   | 0.000  | no pollution        |
| Krásno                  | Mg, Mn  | 0.395  | low pollution       |
| Livina                  | Ca+Mg, Mg, Mn, NO <sub>3</sub>                          | 0.317  | low pollution       |
| Livinské Opatovce       | Mg, NO <sub>3</sub>                                     | 0.505  | low pollution       |
| Malé Kršteňany          | Mg, Fe, As  | 15.116 | high very pollution |
| Malé Uherce             | Mg,   | 0.000  | no pollution        |
| Nadlice                 | Mg, Mn, NO <sub>3</sub>                                 | 1.467  | medium pollution    |
| Nedanovce               | Mg, Fe, Mn  | 2.231  | medium pollution    |
| Ostratice               | Ca+Mg, Mg, NO <sub>3</sub>                              | 0.046  | low pollution       |
| Partizánske             | Mg  | 0.000  | no pollution        |
| Pažit'                  | Fe  | 0.376  | low pollution       |
| Skačany                 | Mg  | 0.000  | no pollution        |
| Turčianky               | Mg, Mn  | 0.034  | low pollution       |
| Veľké Kršteňany         | Mg, As, Cd  | 15.737 | high very pollution |
| Veľké Uherce            |   | 0.000  | no pollution        |
| Veľký Kliž              |   | 0.000  | no pollution        |
| Žabokreky nad Nitrou    | Ca+Mg, Mg, Mn   | 0.530  | low pollution       |

## SOIL

$I_{ERs}$  - index of environmental risk for soil;

soil quality: no pollution 0; low pollution  $>0 \leq 1$ ; medium pollution  $>1 \leq 5$ ; high pollution  $>5 \leq 10$ ; very high pollution  $>10$

limit value: law No. 220/2004, sandy-loamy, loamy soil type

|            |       |                  |
|------------|-------|------------------|
| Cr         | 0.255 | low pollution    |
| Cr         | 0.389 | low pollution    |
| Cr         | 0.411 | low pollution    |
| Cr         | 0.343 | low pollution    |
| Cr         | 0.226 | low pollution    |
| Cr         | 0.237 | low pollution    |
| Cr         | 0.150 | low pollution    |
| Cr         | 0.143 | low pollution    |
| Cr         | 0.281 | low pollution    |
| Cr         | 0.427 | low pollution    |
| Cr         | 0.328 | low pollution    |
| Cr         | 0.257 | low pollution    |
| Cr         | 0.136 | low pollution    |
| Cr         | 0.109 | low pollution    |
| Cr         | 0.180 | low pollution    |
| Cd, Co     | 1.481 | high pollution   |
|            | 0.000 | no pollution     |
|            | 0.000 | no pollution     |
| As, Cr     | 0.125 | low pollution    |
| Cr         | 0.130 | low pollution    |
| Cr         | 0.183 | low pollution    |
| Cr         | 0.213 | low pollution    |
| As, Co, Cr | 0.830 | medium pollution |
| As, Cr     | 0.541 | medium pollution |
| Cr         | 0.186 | low pollution    |
| Cr         | 0.129 | low pollution    |
| Co, Cr     | 0.251 | low pollution    |
| Co, Cr     | 0.363 | low pollution    |
| As, Cr     | 0.500 | low pollution    |
| Cd, Co     | 1.011 | high pollution   |
| Cr         | 0.079 | low pollution    |
| As, Co, Cr | 0.863 | medium pollution |
| As, Cr     | 0.187 | low pollution    |
|            | 0.000 | no pollution     |
| Cr         | 0.165 | low pollution    |

# Evaluated environmental indicators - Trenčín region

## GROUNDWATER

$I_{ERgw}$  - index of environmental risk for groundwater;

groundwater quality: no pollution 0; low pollution  $>0 \leq 1$ ; medium pollution  $>1 \leq 5$ ; high pollution  $>5 \leq 10$ ; very high pollution  $>10$ ;

excess of limits for drinking water for Ca, Mg, Ca+Mg - **green** color value below lower limit, **red** color higher than upper limit

limit value: NV MZ SR 496/2010

| district Považská Bystrica |               |        |                     |
|----------------------------|---------------|--------|---------------------|
| Bodiná                     |               | 0.000  | no pollution        |
| Brvnište                   | Fe            | 0.670  | low pollution       |
| Čelkova Lehota             |               | 0.000  | no pollution        |
| Dolná Mariková             | Fe            | 2.320  | medium pollution    |
| Dolný Lieskov              |               | 0.000  | no pollution        |
| Domaniža                   |               | 0.000  | no pollution        |
| Ďurďové                    |               | 0.000  | no pollution        |
| Hatné                      | Fe            | 4.202  | medium pollution    |
| Horná Mariková             | Mg            | 0.000  | no pollution        |
| Horný Lieskov              | Mn            | 0.667  | low pollution       |
| Jasenica                   |               | 0.000  | no pollution        |
| Klieština                  | Fe, Mn        | 3.057  | medium pollution    |
| Kostolec                   |               | 0.000  | no pollution        |
| Malé Lednice               |               | 0.000  | no pollution        |
| Papradno                   | Mg            | 0.000  | no pollution        |
| Plevník - Drienové         |               | 0.000  | no pollution        |
| Počarová                   |               | 0.000  | no pollution        |
| Podskalie                  | Mn            | 0.013  | low pollution       |
| Považská Bystrica          |               | 0.000  | no pollution        |
| Prečín                     |               | 0.000  | no pollution        |
| Pružina                    |               | 0.000  | no pollution        |
| Sádočné                    |               | 0.000  | no pollution        |
| Slopňa                     | Mn            | 0.164  | low pollution       |
| Stupné                     | Fe            | 0.014  | low pollution       |
| Sverepec                   | Mn            | 0.097  | low pollution       |
| Udiča                      | Fe            | 1.160  | medium pollution    |
| Vrchteplá                  |               | 0.000  | no pollution        |
| Záskalie                   |               | 0.000  | no pollution        |
| district Prievidza         |               |        |                     |
| Bojnice                    | Fe, Mn        | 11.758 | high very pollution |
| Bystričany                 | Fe, Mn, As    | 10.499 | high very pollution |
| Čavoj                      |               | 0.000  | no pollution        |
| Čereňany                   | Fe, Mn, As    | 9.662  | high pollution      |
| Chrenovec - Brusno         |               | 0.000  | no pollution        |
| Chvojnica                  | Ca+Mg, Ca, Mg | 0.000  | no pollution        |

## SOIL

$I_{ERs}$  - index of environmental risk for soil;

soil quality: no pollution 0; low pollution  $>0 \leq 1$ ; medium pollution  $>1 \leq 5$ ; high pollution  $>5 \leq 10$ ; very high pollution  $>10$

limit value: law No. 220/2004, sandy-loamy, loamy soil type

|            |       |                  |
|------------|-------|------------------|
| Cr         | 0.336 | low pollution    |
| Cr         | 0.350 | low pollution    |
| Cd,        | 0.111 | low pollution    |
| Cr         | 0.390 | low pollution    |
|            | 0.000 | no pollution     |
|            | 0.000 | no pollution     |
|            | 0.000 | no pollution     |
| Cr         | 0.384 | low pollution    |
| Cr         | 0.307 | low pollution    |
| Cr         | 0.154 | low pollution    |
| Cr         | 0.432 | low pollution    |
| Cr         | 0.346 | low pollution    |
| Cr         | 0.418 | low pollution    |
| Cr         | 0.025 | low pollution    |
| Cr         | 0.365 | low pollution    |
| Cr         | 0.498 | low pollution    |
|            | 0.000 | no pollution     |
|            | 0.000 | no pollution     |
| Cr         | 0.344 | low pollution    |
| Cr         | 0.076 | low pollution    |
| Cd,        | 0.462 | low pollution    |
| Cd,        | 0.034 | low pollution    |
| Cr         | 0.176 | low pollution    |
| Cr         | 0.352 | low pollution    |
| Cd, Co, Cr | 0.397 | low pollution    |
| Cr         | 0.515 | medium pollution |
| Cr, Ni     | 0.437 | low pollution    |
| Cr         | 0.451 | low pollution    |
| As,        | 0.097 | low pollution    |
| As,        | 0.663 | medium pollution |
| As, F      | 0.540 | medium pollution |
| As,        | 0.167 | low pollution    |
|            | 0.000 | no pollution     |
| As, F      | 0.777 | medium pollution |

# Evaluated environmental indicators - Trenčín region

## GROUNDWATER

$I_{ERgw}$  - index of environmental risk for groundwater;

groundwater quality: no pollution 0; low pollution  $>0 \leq 1$ ; medium pollution  $>1 \leq 5$ ; high pollution  $>5 \leq 10$ ; very high pollution  $>10$ ;

excess of limits for drinking water for Ca, Mg, Ca+Mg - **green** color value below lower limit, **red** color higher than upper limit

limit value: NV MZ SR 496/2010

|                       |                              |        |                     |
|-----------------------|------------------------------|--------|---------------------|
| Cigiel'               | Mn                           | 0.635  | low pollution       |
| Diviacka Nová Ves     | Fe, Mn, Cd, Al               | 7.185  | high pollution      |
| Diviaky nad Nitricou  | Cd                           | 10.279 | high very pollution |
| Dlžin                 | Cd                           | 3.766  | medium pollution    |
| Dolné Vestenice       | <b>Mg</b> , Cd               | 0.231  | low pollution       |
| Handlová              | <b>Mg</b>                    | 0.000  | no pollution        |
| Horná Ves             | Fe,                          | 0.350  | low pollution       |
| Horné Vestenice       | <b>Mg</b> , Cd               | 6.458  | high pollution      |
| Jalovec               |                              | 0.000  | no pollution        |
| Kamenec pod Vtáčnikom | Fe, Mn                       | 2.051  | medium pollution    |
| Kanianka              |                              | 0.000  | no pollution        |
| Kľačno                |                              | 0.000  | no pollution        |
| Kocurany              | Fe, Mn, Cd, Al               | 11.662 | high very pollution |
| Koš                   | Fe, Mn, Al                   | 14.459 | high very pollution |
| Kostolná Ves          | Cd                           | 12.281 | high very pollution |
| Lazany                | Mn                           | 0.136  | low pollution       |
| Lehota pod Vtáčnikom  | Mn                           | 0.682  | low pollution       |
| Liešťany              | Mn, Cd                       | 3.748  | medium pollution    |
| Lipník                |                              | 0.000  | no pollution        |
| Malá Čausa            |                              | 0.000  | no pollution        |
| Malinová              |                              | 0.000  | no pollution        |
| Nedožery - Brezany    | Fe, Mn                       | 1.079  | medium pollution    |
| Nevidzany             | <b>Ca+Mg</b> , Ca, <b>Mg</b> | 0.000  | no pollution        |
| Nitrianske Pravno     |                              | 0.000  | no pollution        |
| Nitrianske Rudno      | Cd                           | 10.461 | high very pollution |
| Nitrianske Sučany     | Fe, Mn, Cd                   | 5.927  | high pollution      |
| Nitrica               | <b>Mg</b> , Mn, As, Cd       | 18.332 | high very pollution |
| Nováky                | Fe, Mn, Al                   | 11.763 | high very pollution |
| Opatovce nad Nitrou   | Fe, Mn, Al                   | 19.794 | high very pollution |
| Oslany                | Fe, Mn, As                   | 2.523  | medium pollution    |
| Podhradie             |                              | 0.000  | no pollution        |
| Poluvsie              | Fe                           | 0.287  | low pollution       |
| Poruba                | <b>Ca+Mg</b> , Ca, <b>Mg</b> | 0.000  | no pollution        |
| Pravenec              | Fe, Mn                       | 1.657  | medium pollution    |
| Prievidza             | Fe, Mn                       | 9.237  | high pollution      |
| Radobica              |                              | 0.000  | no pollution        |

## SOIL

$I_{ERs}$  - index of environmental risk for soil;

soil quality: no pollution 0; low pollution  $>0 \leq 1$ ; medium pollution  $>1 \leq 5$ ; high pollution  $>5 \leq 10$ ; very high pollution  $>10$

limit value: law No. 220/2004, sandy-loamy, loamy soil type

|            |       |                  |
|------------|-------|------------------|
|            | 0.000 | no pollution     |
| Cr         | 0.139 | low pollution    |
| Cr         | 0.111 | low pollution    |
| As,        | 0.332 | low pollution    |
| Cd, Co     | 0.880 | medium pollution |
|            | 0.000 | no pollution     |
|            | 0.000 | no pollution     |
| Co, Cr     | 0.357 | low pollution    |
|            | 0.000 | no pollution     |
| As,        | 0.592 | medium pollution |
| As,        | 0.416 | low pollution    |
| Cr, F, Ni  | 1.025 | high pollution   |
|            | 0.000 | no pollution     |
|            | 0.000 | no pollution     |
|            | 0.000 | no pollution     |
| As, Cr     | 0.083 | low pollution    |
| As,        | 0.105 | low pollution    |
|            | 0.000 | no pollution     |
|            | 0.000 | no pollution     |
|            | 0.000 | no pollution     |
| As, F      | 0.197 | low pollution    |
|            | 0.000 | no pollution     |
| As, F      | 0.267 | low pollution    |
| Cr, F      | 0.457 | low pollution    |
| Cr         | 0.049 | low pollution    |
| As, Cr     | 0.516 | medium pollution |
| As, Co, Cr | 0.990 | medium pollution |
| As, Cr     | 1.295 | high pollution   |
|            | 0.000 | no pollution     |
| As,        | 0.018 | low pollution    |
|            | 0.000 | no pollution     |
| Cr         | 0.109 | low pollution    |
| As,        | 0.410 | low pollution    |
| Cr         | 0.050 | low pollution    |
|            | 0.000 | no pollution     |
|            | 0.000 | no pollution     |

# Evaluated environmental indicators - Trenčín region

## GROUNDWATER

$I_{ERgw}$  - index of environmental risk for groundwater;

groundwater quality: no pollution 0; low pollution  $>0 \leq 1$ ; medium pollution  $>1 \leq 5$ ; high pollution  $>5 \leq 10$ ; very high pollution  $>10$ ;

excess of limits for drinking water for Ca, Mg, Ca+Mg - **green** color value below lower limit, **red** color higher than upper limit

limit value: NV MZ SR 496/2010

|                      |                |        |                     |
|----------------------|----------------|--------|---------------------|
| Ráztočno             |                | 0.000  | no pollution        |
| Rudnianska Lehota    | Cd             | 5.708  | high pollution      |
| Sebedražie           | Fe, Mn         | 7.014  | high pollution      |
| Seč                  | Cd             | 2.570  | medium pollution    |
| Šutovce              | Cd             | 2.116  | medium pollution    |
| Temeš                | Ca+Mg, Ca, Mg  | 0.000  | no pollution        |
| Tužina               |                | 0.000  | no pollution        |
| Valaská Belá         |                | 0.000  | no pollution        |
| Veľká Čausa          | Mn             | 0.136  | low pollution       |
| Zemianske Kostoľany  | Mg, Fe, Mn, As | 12.044 | high very pollution |
| district Púchov      |                |        |                     |
| Beluša               |                | 0.000  | no pollution        |
| Dohňany              |                | 0.000  | no pollution        |
| Dolná Breznica       |                | 0.000  | no pollution        |
| Dolné Kočkovce       |                | 0.000  | no pollution        |
| Horná Breznica       |                | 0.000  | no pollution        |
| Horovce              |                | 0.000  | no pollution        |
| Kvašov               |                | 0.000  | no pollution        |
| Lazy pod Makytou     | Mg             | 0.000  | no pollution        |
| Lednica              |                | 0.000  | no pollution        |
| Leďnické Rovne       |                | 0.000  | no pollution        |
| Lúky                 | Mg             | 0.000  | no pollution        |
| Lysá pod Makytou     |                | 0.000  | no pollution        |
| Mestečko             |                | 0.000  | no pollution        |
| Mojtín               |                | 0.000  | no pollution        |
| Nimnica              |                | 0.000  | no pollution        |
| Púchov               |                | 0.000  | no pollution        |
| Streženice           |                | 0.000  | no pollution        |
| Visolaje             |                | 0.000  | no pollution        |
| Vydrná               | Mg             | 0.000  | no pollution        |
| Záriečie             |                | 0.000  | no pollution        |
| Zubák                |                | 0.000  | no pollution        |
| district Trenčín     |                |        |                     |
| Adamovské Kochanovce |                | 0.000  | no pollution        |
| Bobot                |                | 0.000  | no pollution        |
| Chocholná - Velčice  |                | 0.000  | no pollution        |

## SOIL

$I_{ERs}$  - index of environmental risk for soil;

soil quality: no pollution 0; low pollution  $>0 \leq 1$ ; medium pollution  $>1 \leq 5$ ; high pollution  $>5 \leq 10$ ; very high pollution  $>10$

limit value: law No. 220/2004, sandy-loamy, loamy soil type

|            |       |                  |
|------------|-------|------------------|
|            | 0.000 | no pollution     |
|            | 0.000 | no pollution     |
|            | 0.000 | no pollution     |
| As,        | 0.268 | low pollution    |
| As,        | 0.228 | low pollution    |
| As, F      | 0.271 | low pollution    |
| F          | 0.787 | medium pollution |
| Cr, F      | 0.246 | low pollution    |
|            | 0.000 | no pollution     |
| As, Cr     | 2.651 | high pollution   |
|            |       |                  |
| Cd, Co, Cr | 0.328 | low pollution    |
| Cr         | 0.244 | low pollution    |
| Cr         | 0.057 | low pollution    |
| Cd, Co, Cr | 0.636 | medium pollution |
| Cr         | 0.087 | low pollution    |
| Cr         | 0.126 | low pollution    |
| Cr         | 0.064 | low pollution    |
| Cr, Ni     | 0.398 | low pollution    |
| Cr         | 0.028 | low pollution    |
| Cr         | 0.088 | low pollution    |
| Cr         | 0.266 | low pollution    |
| Cr         | 0.420 | low pollution    |
| Cr         | 0.183 | low pollution    |
| Cd,        | 0.210 | low pollution    |
| Cr         | 0.525 | medium pollution |
| Cr         | 0.371 | low pollution    |
| Cr         | 0.129 | low pollution    |
| Cd, Co, Cr | 0.985 | medium pollution |
| Cr         | 0.257 | low pollution    |
| Cr         | 0.209 | low pollution    |
| Cr         | 0.079 | low pollution    |
|            |       |                  |
| Cr         | 0.303 | low pollution    |
| Cr         | 0.240 | low pollution    |
| Cr         | 0.186 | low pollution    |

# Evaluated environmental indicators - Trenčín region

## GROUNDWATER

$I_{ERgw}$  - index of environmental risk for groundwater;

groundwater quality: no pollution 0; low pollution  $>0 \leq 1$ ; medium pollution  $>1 \leq 5$ ; high pollution  $>5 \leq 10$ ; very high pollution  $>10$ ;

excess of limits for drinking water for Ca, Mg, Ca+Mg - green color value below lower limit, red color higher than upper limit

limit value: NV MZ SR 496/2010

|                       |                                       |       |                  |
|-----------------------|---------------------------------------|-------|------------------|
| Dolná Poruba          |                                       | 0.000 | no pollution     |
| Dolná Súča            |                                       | 0.000 | no pollution     |
| Drietoma              |                                       | 0.000 | no pollution     |
| Dubodiel              | Mn                                    | 0.844 | low pollution    |
| Horná Súča            |                                       | 0.000 | no pollution     |
| Horňany               | Mg, NO <sub>3</sub>                   | 0.081 | low pollution    |
| Horné Srnie           |                                       | 0.000 | no pollution     |
| Hrabovka              |                                       | 0.000 | no pollution     |
| Ivanovce              | NO <sub>2</sub>                       | 0.846 | low pollution    |
| Kostolná - Záriečie   | Mg, Mn, NH <sub>4</sub>               | 7.301 | high pollution   |
| Krivosúd - Bodovka    | Fe, Mn                                | 4.703 | medium pollution |
| Melčice - Lieskové    |                                       | 0.000 | no pollution     |
| Mníchova Lehota       |                                       | 0.000 | no pollution     |
| Motešice              |                                       | 0.000 | no pollution     |
| Nemšová               |                                       | 0.000 | no pollution     |
| Neporadza             |                                       | 0.000 | no pollution     |
| Omšenie               |                                       | 0.000 | no pollution     |
| Opatovce              | Mg, Mn, NH <sub>4</sub>               | 4.369 | medium pollution |
| Petrova Lehota        |                                       | 0.000 | no pollution     |
| Selec                 | Mn                                    | 1.825 | medium pollution |
| Skalka nad Váhom      |                                       | 0.000 | no pollution     |
| Soblahov              |                                       | 0.000 | no pollution     |
| Štvrtok               | NO <sub>2</sub>                       | 2.090 | medium pollution |
| Svinná                |                                       | 0.000 | no pollution     |
| Trenčianska Teplá     |                                       | 0.000 | no pollution     |
| Trenčianska Turná     | Mn                                    | 0.057 | low pollution    |
| Trenčianske Jastrabie | Mn                                    | 0.333 | low pollution    |
| Trenčianske Mitice    | Mg                                    | 0.000 | no pollution     |
| Trenčianske Stankovce | Mn                                    | 2.804 | medium pollution |
| Trenčianske Teplice   |                                       | 0.000 | no pollution     |
| Trenčín               | Mn, NH <sub>4</sub>                   | 1.581 | medium pollution |
| Veľká Hradná          | Mn                                    | 0.649 | low pollution    |
| Veľké Bierovce        | Mn, NH <sub>4</sub> , NO <sub>3</sub> | 1.625 | medium pollution |
| Zamarovce             | Ca+Mg, Mg, NO <sub>3</sub>            | 0.046 | low pollution    |

## SOIL

$I_{ERs}$  - index of environmental risk for soil;

soil quality: no pollution 0; low pollution  $>0 \leq 1$ ; medium pollution  $>1 \leq 5$ ; high pollution  $>5 \leq 10$ ; very high pollution  $>10$

limit value: law No. 220/2004, sandy-loamy, loamy soil type

|            |       |                  |
|------------|-------|------------------|
| Cr, Ni     | 0.474 | low pollution    |
| Cr         | 0.020 | low pollution    |
| Cr         | 0.067 | low pollution    |
| Cr         | 0.172 | low pollution    |
| Cr         | 0.039 | low pollution    |
| Cr         | 0.260 | low pollution    |
|            | 0.000 | no pollution     |
| Cr         | 0.171 | low pollution    |
| Cr         | 0.252 | low pollution    |
| Cr         | 0.162 | low pollution    |
| Cr         | 0.210 | low pollution    |
| Cr         | 0.319 | low pollution    |
| Cr         | 0.123 | low pollution    |
| Cd, Cr     | 0.229 | low pollution    |
|            | 0.000 | no pollution     |
| Cr         | 0.222 | low pollution    |
| Cd, Co     | 0.602 | medium pollution |
| Cr         | 0.201 | low pollution    |
| Cd, Co, Cr | 1.720 | high pollution   |
| Cr         | 0.101 | low pollution    |
| Cr         | 0.109 | low pollution    |
| Co, Cr     | 0.171 | low pollution    |
| Cr         | 0.240 | low pollution    |
| Cr         | 0.253 | low pollution    |
| Cd, Co, Cr | 1.824 | high pollution   |
| Cr         | 0.130 | low pollution    |
| Cr         | 0.154 | low pollution    |
| Cr         | 0.185 | low pollution    |
| Cr         | 0.160 | low pollution    |
| Cd, Co, Cr | 2.166 | high pollution   |
| Co, Cr     | 0.229 | low pollution    |
| Cr         | 0.216 | low pollution    |
| Cr         | 0.225 | low pollution    |
| Cr         | 0.219 | low pollution    |