**Nitrates**

*Legal reference*

Council Directive 91/676/EEC of 12 December 1991 concerning the protection of waters against pollution caused by nitrates from agricultural sources as amended by Regulations (EC) 1882/2003 and (EC) 1137/2008

**Transposition**

1. Which parts of the Directive have been transposed?

Directive has a transposition score of 67 %. The Law on Water (Official Gazette of the Republic of Montenegro 27/07) and Law on fertilizers (Official Gazette of the Republic of Montenegro 48/07) are the legal document in which part of the Directive is transposed.

Articles 2a, 2b, 5.6 and 6.1 are transposed through Article 5 and 58 of the Law on Water (Official Gazette of the Republic of Montenegro 27/07). Article 5, though definitions for surface and underground water, water bodies, good ecological status, pollution, etc. and Article 58 defines that using and protection of surface and underground waters require monitoring of qualitative and quantitative parameters conducted by the Institute of Hydrometeorology and seismology

Articles 2 c, 2d, 2e, 2f, 2g i 2h are transposed through Article 2 of the Law on fertilizers (Official Gazette of the Republic of Montenegro 48/07), where as Article 2 defines the mineral and organic fertilizers, soil conditioners, plant nutrition products, etc.

Articles 4.1, 5.1, 5.2, 5.3, 5.4, 5.5 and 5.7 are transposed through Article 18 of the Law on fertilizers (Official Gazette of the Republic of Montenegro 48/07), regulates that fertilizers are used in accordance with the principles of good agricultural practice, which involves the application of ceratin type of fertilizer in accordance with: the needs of plants, soil properties, climate characteristics, conditions for sowing and planting. Furthermore, according to the same article, the Ministry of Agriculture and Rural Development, will prepare detailed instructions for application of fertilizers, as well as action programs and measures for vulnerable zones.

1. How and when remaining provisions will be transposed?

The complete transposition of the Council Directive 91/676/EEC of 12 December 1991 concerning the protection of waters against pollution caused by nitrates from agricultural sources as amended by Regulations (EC) 1882/2003 and (EC) 1137/2008 can be realized in several ways, depending on the appropriate decisions about the water management and environmental protection policies:

* Changes and amendments of the Law on Water (Official Gazette of the Republic of Montenegro 27/07) to include all provisions not included or incompletely included and to change those provisions that are in contrary with the provisions of the Directive.
* Changes and amendments of the Law on fertilizers and adoption of the new legal act in which the complete Directive is transposed.
* Annex I and Annex II will adopt in Code of Good Agricultural Practice on the basis of the Law on fertilizers, OG MNE No. 48/2007, Art 18

Planed year for full transposition is 2016 .

**Implementation**

What has been achieved as regards:

* Identifying waters that are, or could be, affected by nitrate pollution (Art. 3)

 Amendments to the Law on Water determine adoption of the Act of Regulation on the protection of waters against pollution by nitrates from agricultural sources.

Deadline for implementation is 31th December 2014.

According to the current Decree on classification and categorization of surface and groundwater (Official Gazette 2/07), it’s determined the classification and categorization of surface and groundwater on land and coastal marine waters.

General distribution of water regulated the classification of water based on the class of allowable limits of certain parameter values ​​for a particular purpose. Water that can be used for drinking and food industries have been classified into four classes (A, A1, A2 and A3) according to their natural properties and limit values of quality indicators.

Maximum allowed concetrations (MAC) for nitrate NO3 class determined by the regulations are:

* class A - 10 mg / l NO
* class A1 - 20 mg / l NO3
* class A2 - 25 mg / l NO3
* class A3 - 50 mg / l NO3

The established MAC values ​​in accordance with Directive 75/440/EEC

* Establishing programmes for monitoring nitrates in freshwaters and groundwaters (Art. 6)
* Ministry of Agriculture and Rural Development adopting a proposal on 'Program of systematic testing of surface and ground water that matches the EU Framework Directive on Water (2000/60/EC), and complies with the Directives on dangerous substances in surface waters (2006/11/EEC) on the quality of surface water intended for drinking water (75/440/EEC, 80/778/EEC, 79/869/EEC and 91/692 / EEC), the water quality of shellfish (2006/113/EEC /, 91/692/EEC) and the quality of bathing water (2006/7/EEC). Also, in order to assess the quality of aquatic ecosystems, materials testing facilities from the list of substances whose presence in water is prohibited or restricted in accordance with Directives 86/280/EEC, 88/347/EEC and 90/415EEC, including lists I and II of the Directive 2006/11/EEC relating to sludge, sediment, and aquatic organisms specific to a given environment. The testing program is adopted by the Government of Montenegro on proposal of Ministry of Agriculture and Rural Development. The testing program is adopted each year.
* The data will be processed to comply with the reporting method for EIONET network. Measurement sites will be defined in the appropriate GPRS coordinates. They will do a detailed analysis of the data and provide a clear feedback evaluation of surface and ground water, evaluation of the status of aquatic ecosystems and the analysis of possible sources of contamination with proposed measures to reduce pollution and improve the quality of water and aquatic ecosystems. Based on the data obtained, it will be made the water categorization on the basis of ecological status and on the Decree on the water categorization.
* Establishing programmes for monitoring eutrophication in estuaries, coastal waters and marine waters (Art. 6)

In the above-mentioned Program of systematic testing of water quality, it is also carried out systematically testing of the coastal water quality, up to eight times a year, in March-November (once a month). Water sample is taken from three vertical profiles of the water column (surface, middle, bottom) at each measurement site. The geographical positions of measurement sites are harmonized with the requirements of the Water Framework Directive and the other EU and UN regulations.

* Designating vulnerable zones (Art. 3)

Amendments to the Law on Water determine adoption of the Act of Regulation on the protection of waters against pollution by nitrates from agricultural sources.

However, on the basis of the results obtained from the Program of systematic monitoring of surface and groundwater, as well as on basis of agricultural land maps, we will create the base after transposing the Directive for zones vulnerable to nitrate.

Namely, as in the physical and chemical parameters provided by this Program examines the contents of nitrite and nitrate in surface and ground waters, and as the program is carried out each year separately, it is possible to improve (enhance) the monitoring of nitrate in the territory of Montenegro, where there are agricultural areas.

* Establishing Code(s) of good agricultural practice (Art. 4)

The Law on Fertilizers provides in art. 18 a legal base for adoption and introduction of a code of good agricultural practice.

Ministry of agriculture and rural development will approve and publish the Code of good agriculture practice which is now in draft phase and will to published in 2013.

* Establishing action programmes for vulnerable zones (Art. 5)

Amendments to the Law on Water determine adoption of the Act of Regulation on the protection of waters against pollution by nitrates from agricultural sources.

* Establishing limits for fertiliser application (Annex III.2)

Montenegro with the adoption of the Law on Agriculture and Rural Development, published in the Official Gazette of Montenegro. 56/09 prescribed in Article 46 to the farms involved in the production of agricultural products and food required to adhere code of good agricultural practice.

 The purpose of this Code of Good Agricultural Practice is to provide a comprehensive summary of all recommendations and requirements that farmers should follow in order to protect the environment and animal health and welfare. The Code contains:

Requirements that farmers must follow in order to comply with current Montenegrin legislation;

Requirements that applying farmers must follow in order to fulfil the pre-conditions for various MIDAS and IPARD grants;

Recommendations that farmers should take into account in order to make sure they comply with future EU requirements;

Recommendations that farmers should follow in order to protect Montenegro’s agriculture and natural environment.

Paragraph 2 of the same article stipulates that the Ministry of Agriculture and Rural Development shall prescribe the manner of implementation of the code of good agricultural practice.
In this way created the legal basis for the complete trasposition of Annex II and III of Council Directive 91/676/EEC. Law on Fertilizers, Official Gazette of Montenegro, 48/07 in Section 18 is not a sufficient legal basis for the transfer of the provisions of Annex II and III.

Along with the development of the Code of Good Agricultural Practice, it is done in consultation with foreign experts, GAP analysis for nitrate which is the recommendation for the application of fertilizers and manure livestock in accordance with the requirements of Annex III. - 2 of this Directive which apply to the following questions that will be incorporated in the Code of Good Agricultural Practice.

*Usage of fertilizers on steep slopes*

Manure or liquid fertilizer should not be used on steep slopes, where there is a high risk of runoff water (i.e. during heavy rains it can be seen the water that flows downhill on the surface).

*Usage of fertilizers on water saturated, flooded, frozen or snow-covered land*

Fertilizer, manure livestock or liquid fertilizer should not be used on water saturated, flooded, frozen or snow-covered land, or if a big rain is forecasted in the next 48 hours.

*Usage of fertilizers near watercourses*

Manure livestock or liquid fertilizer should not be used where there a is likelihood that it pollutes the water i.e.:
- At a distance of at least 5 feet from any ditch, stream, river or pond, or 10 feet if the soil is visibly tilted in the direction of water flow;

- At a distance of at least 50 feet from any wells or borehole used for production of water for human consumption or use in the dairy farm.

Artificial fertilizer or lime should not be backfilled into ditches, streams or rivers, live fence, uncultivated land or other areas where fertilizer or lime can threaten the flora and fauna. It is also recommended that artificial fertilizer is not used at a distance of 2 meters from watercourses and hedges.

* Establishing maximum application standard of nitrogen from livestock manure (Annex

III.2)

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Recommendations that farmers should take into account in order to make sure they comply with future EU requirements;

Recommendations that farmers should follow in order to protect Montenegro’s agriculture and natural environment.

Within the Code of good agricultural practice, it will be provided guidelines for the establishment of standards of maximum use of nitrogen from manure livestock.

* Establishing period when fertilizer application is prohibited (Annex III.1)

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*Periods when not to use artificial or manure fertilizer:*

Manure livestock and liquid fertilizers should not be used during periods of heavy rain, when there is a significant enclosure of water runoff or flushing, or during hot, dry periods when manure, solid or liquid fertilizer can stand on the soil surface for a long time and lose a lot of nitrogen in the form of ammonia gas (and odor):

* i.e. manure livestock and liquid fertilizer should not be used in the November-February and July-August period.
* artificial fertilizers should be used when the plants are in the vegetation period, so they can take the nutrients quickly, and should avoid periods of heavy rainfalls when there is a significant risk of runoff or flushing. Generally speaking, artificial fertilizers should not be used from November to February if it does not require specific culture in the period.
* Manure livestock or liquid fertilizers should not be used for soft fruit or vegetables within 30 days prior to harvesting.
* Establish a minimum storage capacity of storage vessels for livestock manure and provisions on construction including measures to prevent water pollution by runoff and seepage into groundwater and surface water (Annex III.2 and II A.5)

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***The capacity and construction of storage vessels for livestock manures and silage, including measures to prevent water pollution from them***

Storage vessels for manure livestock and liquid fertilizer must:

* Have sufficient capacity to withstand at least six months of manure livestock production, including waste water that is stored with the manure livestock.
* Be located away from homes and facilities for the processing or storage of foods (including dairy):
- Sheltered storages for liquid fertilizer should be at least 15 meters away from houses and food processing facilities;

- Open storages, including piles of manure livestock, should be at least 30 meters away from houses and food processing facilities;

- In very small farms where this distance cannot be achieved, the storage of manure livestock should be as far away from the houses or any of the areas used for the processing and storage of foods.

* Ensure that there are no leaks or runoff into watercourses. This can be achieved either by the entire storage vessels designed so that it can keep holding liquid or liquid waste in special hermetically sealed container. In addition, storage capacity needs to be removed:
* At least 50 meters away from any wells or borehole used for production of water for human consumption or use in the dairy industry;
* At least 10 meters away from any watercourse and not to be located on land that is tilted in the direction of water flow

Guidelines for the design of storage vessels for manure livestock can be obtained from the Agency for Livestock Selection.

It should be prevented that liquid waste from silage pollutes surface water or groundwater:

* For small amounts of dry silage (e.g. corn silage), it can be achieved by setting the storage of silage on the flat land at least 10 meters away from any drainage, ditch or watercourse, and by coating the bottom of the warehouse for silage with straw, a dry sugar beet pulp, the corn bran, etc. which could subsequently be used as food for animals.
* For dry silage (e.g. grass silage) and for large amounts of corn silage, storage of silage should be designed so that the liquid waste ends up in the liquid manure pit or in a watertight space, from where it can be pumped out and dispensed at the corresponding mail.
* Grass, clover or alfalfa silage should dry before baling and wrapping in order to increase the dry matter content, and the bales need to stand on a flat surface at least 10 meters away from any drainage, ditch or watercourse.

Guidelines for the design of storage vessels for silage can be obtained from the Agency for Livestock Selection.

The Other Conditions

Livestock facilities should be designed and located so that the liquid fertilizer and water stop leaking and thus do not pollute surface and groundwater. Advice on the design and location of facilities can be provided by Livestock Selection Service.

* Establishing an effective inspection and enforcement system

The Law on Water provides for adoption of a Program of Systematic Monitoring of Quality and Quantity Parameters of Surface and Ground Waters (Art. 58)., while parameter monitoring is carried out by the Hydrometeorology Institut.

* Establish protocol to co-operate with other Member States (Art. 3.3)
* Establish a mechanism to provide reports to the Commission (Art. 10)

Not determined yet.