

DIN EN 16870:2017-05 (E)

Water quality - Guidance standard on determining the degree of modification of lake hydromorphology

Contents		Page
European foreword		4
Introduction		5
1	Scope	6
2	Normative references	6
3	Terms and definitions	6
4	Principle	10
5	Determining the hydromorphological modifications of lakes	10
5.1	Feature categories	10
Table 1 -- Features to be assessed when determining the hydromorphological modifications of lakes		11
5.2	Procedure for scoring	11
Table 2 -- Conversion table		12
6	Interpreting and reporting hydromorphological modifications	12
6.1	Modification scores	12
Table 3 -- Options, applications and procedures for reporting hydromorphological modification scores		13
6.2	Assigning classification terms	13
Table 4 -- Classification terms for 5 classes (Score band A)		14
Table 5 -- Classification terms for 3 classes (Score band B)		14
Annex A (normative) Characterization of lake modification based on hydromorphological features .		15
Table A.1 -- Characterization of lake modification based on hydromorphological features		16
Annex B (normative) Alterations to mean annual water level range		29
Table B.1 -- Alterations to mean annual water level range		29
Annex C (normative) Land cover in the lake catchment		31
Table C.1 -- Land cover in the lake catchment		31
Annex D (informative) Case study examples		32
D.1	Lago Maggiore (Italy)	32
D.1.1	Summary description	32
Figure D.1 -- Location of Lago Maggiore		32
D.1.2	Morphometric characteristics	33

Table D.1 -- Morphometric characteristics of Lago Maggiore	33
D.1.3 Degree of modification using Annex A	33
Table D.2 -- Modification scores for Lago Maggiore, using reporting option 1	33
Table D.3 -- Modification scores for Lago Maggiore using reporting options 2, 3 and 4	34
D.1.4 Conclusions	34
D.2 Lago Bidighinzu (Italy)	35
D.2.1 Summary description	35
Figure D.2 -- Location of Lago Bidighinzu	35
D.2.2 Morphometric characteristics	36
Table D.4 -- Morphometric characteristics of Lago Bidighinzu	36
D.2.3 Degree of modification using Annex A	36
Table D.5 -- Modification scores for Lago Bidighinzu, using reporting option 1	36
Table D.6 -- Modification scores for Lago Bidighinzu using reporting options 2, 3 and 4	37
D.2.4 Conclusions	37
D.3 Lake Lidzbarskie (Poland)	38
D.3.1 Summary description	38
Figure D.3 -- Location of Lake Lidzbarskie and a map of its bathymetry	38
D.3.2 Morphometric characteristics	38
Table D.7 -- Morphometric characteristics of Lake Lidzbarskie	39
D.3.3 Degree of modification using Annex A	39
Table D.8 -- Modification scores for Lake Lidzbarskie, using reporting option 1	39
Table D.9 -- Modification scores for Lake Lidzbarskie using reporting options 2, 3 and 4	41
D.3.4 Conclusions	41
D.4 Lake Velenje (Slovenia)	41
D.4.1 Summary description	41
Figure D.4 -- Location of Lake Velenje	42
D.4.2 Morphometric characteristics	42
Table D.10 -- Morphometric characteristics of Lake Velenje	42
D.4.3 Degree of modification using Annex A	43
Table D.11 -- Modification scores for Lake Velenje, using reporting option 1	43
Table D.12 -- Modification scores for Lake Velenje using reporting options 2, 3 and 4	44
D.4.4 Conclusions	44
D.5 Arkanj Lake (Serbia)	44
D.5.1 Summary description	44
D.5.2 Morphometric characteristics	44
Table D.13 -- Morphometric characteristics of Arkanj Lake	45
D.5.3 Degree of modification using Annex A	45
Table D.14 -- Modification scores for Arkanj Lake, using reporting option 1	46
Table D.15 -- Modification scores for Arkanj Lake, using reporting options 2, 3 and 4	47
D.5.4 Conclusions	47