Clarification note in relation to the reporting of <u>spatial data</u> for Water Framework Directive (WFD) <u>protected areas</u>, in the context of the March 2016 reporting of the second River Basin Management Plans (RBMPs)

23 February 2016

### 1. PURPOSE OF THIS NOTE

The purpose of this note is to clarify the reporting requirements of spatial data in relation to protected areas under the Water Framework Directive, for the March 2016 reporting exercise. The need for this note has been identified by requests in the WFD helpdesk (wfd.helpdesk@eionet.europa.eu).

## 2. RELEVANT CONTENTS OF EXISTING GUIDANCE

The guidance quoted below is available on the WFD 2016 reporting resources webpage: <u>http://cdr.eionet.europa.eu/help/WFD/WFD\_521\_2016</u>

The chapter on protected areas in the WFD Reporting Guidance 2016 states the following:

## 5.1 Introduction

According to Article 6 and Annex IV of the WFD, Member States shall ensure the establishment of a register or registers of all areas lying within each RBD which have been designated as requiring special protection under specific Community legislation for the protection of their surface water and groundwater, or for the conservation of habitats and species directly depending on water, including the protection of Natura 2000 sites and economically significant aquatic species (e.g. shellfish).

A summary of the register of Protected Areas should be part of the RBMPs, including maps indicating the location of each Protected Area and a description of the Community, national or local legislation under which the Protected Areas have been designated. It is expected that all Protected Areas will be reported under the surface water body (SWB) and groundwater body (GWB) schemas, through their links to the surface and groundwater bodies<sup>1</sup>.

(...)

<sup>&</sup>lt;sup>1</sup> If the Member State applies a 'whole territory' approach for Urban Waste Water Treatment and/or Nitrates Directive, it should not report surface water bodies as Protected Areas.

#### 5.3.3. GIS Information

GIS information in GML file format should be reported for Protected Areas according to the specifications of the guidance for reporting spatial data (see Annex 5 GIS Guidance). If the Protected Areas are already reported under other directives (e.g. Natura 2000 Protected Areas under the Habitats Directive, bathing waters under the Bathing Water Directive, sensitive areas under UWWTD or vulnerable zones under the Nitrates Directive) they do not need to be reported again under the WFD.

On the other hand the chapter on Protected areas in the WISE GIS Guidance includes the following:

#### Protected areas

Protected areas must be represented by polygon, polyline or point geometries: use the ProtectArea data set, the ProtectAreaLine data set or the ProtectAreaPoint data set accordingly.

Each type of Protected Area is identified using the **zoneType** value. The values 'nitrateVulnerableZone', 'sensitiveArea', 'bathingWaters' and 'drinkingWaterProtectionArea' identify areas designated under the Nitrates Directive, Urban Waste Water Treatment Directive, Bathing Waters Directive or Drinking Water Directive, respectively.

For other protected areas, the **zoneType** element is 'designatedWaters' and the **specialisedZoneType** element is used to further distinguish different types: 'shellfishDesignatedWater', 'freshwaterFishDesignatedWater' or 'otherProtectedArea'.

Note that areas protected under the Habitats or Birds directive are <u>not</u> reported in the WISE spatial data sets.

Data Providers reporting under WISE SoE are not required to provide the Protected Areas data sets.

Guidance on the interpretation of these requirements for the various types of protected areas is provided below.

#### 3. SUMMARY OF THE DATA MODEL

The class **SWAssociatedProtectedArea** belongs to the surface water body XML schema (SWB schema) and it is conditional on the element "SurfaceWaterBody/swAssociatedProtectedArea" being "Yes" (meaning the water body has an associated protected area):

	«XSDcomplexType» SWAssociatedProtectedArea
+ + + + + + + + + + + + + + +	<b>«XSDelement»</b> euProtectedAreaCode: FeatureUniqueEUCodeType protectedAreaComment: String1000Type [01] protectedAreaComment: String1000Type [01] protectedAreaDrinkingWaterObjectivesMet: YesNoNoInformation_Union_Enum [01] protectedAreaDrinkingWaterObjectivesSet: YesNoCode_Enum [01] protectedAreaExemption: ExemptionType_Enum [11] protectedAreaHabitatsBirdsObjectivesSet: ProtectedAreaHabitatsBirdsObjective_Enum [01] protectedAreaHabitatsBirdsObjectivesSet: ProtectedAreaHabitatsBirdsObjective_Enum [01] protectedAreaOtherType: String250Type [01] protectedAreaShellfishObjectivesSet: ProtectedAreaShellfishObjective Enum [01]
+	protectedAreaType: ProtectedAreaType_Enum
	+SWAssociatedProtectedArea

The class **GWAssociatedProtectedArea** belongs to the groundwater body XML schema (GWB schema) and it is conditional on the element "GroundWaterBody/gwAssociatedProtectedArea" being "Yes" (meaning the water body has an associated protected area):

	«XSDcomplexType» GWAssociatedProtectedArea
•	«XSDelement» euProtectedAreaCode: FeatureUniqueEUCodeType
+	protectedAreaAssociationType: ProtAreaAssociationType Enum
+	protectedAreaComment: String1000Type [01]
+	protectedAreaDrinkingWaterObjectivesMet: YesNoNoInformation_Union_Enum [01]
+	protectedAreaDrinkingWaterObjectivesSet: YesNoCode_Enum [01]
+	protectedAreaExemption: ExemptionType_Enum [11]
+	protectedAreaHabitatsBirdsObjectivesMet: YesNoNoInformation_Union_Enum [01]
+	protectedAreaHabitatsBirdsObjectivesSet: ProtectedAreaHabitatsBirdsObjective_Enum [01]
+	protectedAreaOtherType: String250Type [01]
+	protectedAreaType: ProtectedGWAreaType_Enum
	+GWAssociatedProtectedArea 0*

Finally, the GML class ProtectedArea is available to report spatial data:

	gml:AbstractFeatureType
	«FeatureType» ProtectedArea
+	beginLifespanVersion: DateType [01]
+	designationPeriodBegin: DateType
+	designationPeriodEnd: DateType [01]
+	endLifespanVersion: DateType [01]
+	geometry: GM_MultiSurface
+	inspireIdLocalId: String100Type
+	inspireIdNamespace: CharacterString [01]
+	inspireldVersionId: CharacterString [01]
+	legalBasisLevel: LegislationLevelValue
+	legalBasisLink: URLType
+	legalBasisName: CharacterString
+	link: URLType [01]
+	nameLanguage: LanguageCode_Enum
+	nameText: CharacterString
+	nameTextInternational: CharacterString [01]
+	predecessorsIdentifier: CharacterString [01]
+	predecessorsIdentifierScheme: CharacterString [01] = euProtectedAreaCode
+	sizeUoM: SizeValueUnit
+	sizeValue: double
+	specialisedZoneType: SpecialisedZoneType [01]
+	successorsIdentifier: CharacterString [01]
+	successorsIdentifierScheme: CharacterString [01] = euProtectedAreaCode
+	thematicIdIdentifier: FeatureUniqueEUCodeType
+	thematicIdIdentifierScheme: CharacterString = euProtectedAreaCode
+	wiseEvolutionType: EvolutionTypeValue
+	zoneType: ZoneTypeCode

In that class, the attributes ZoneTypeCode and SpecialisedZoneType allow reporting the type of protected area. Guidance on the use of these attributes is provided in the GIS guidance as reproduced in previous section.

«Enumeration» Common_GML::ZoneTypeCode				
bathingWaters designatedWaters drinkingWaterProtectionArea nitrateVulnerableZone				
riverBasinDistrict sensitiveArea waterBody				
«Enumeration» Common_GML::SpecialisedZoneType				
coastalWaterBody freshwaterFishDesignatedWater groundWaterBody lakeWaterBody otherProtectedArea				

All WFD protected areas associated with surface or groundwater bodies need to be reported in the XML datasets using the classes SWAssociatedProtectedArea and GWAssociatedProtectedArea. This information builds the WFD Register of Protected Areas as required by WFD Article 6.

Guidance on the use of the GML ProtectedArea class for the reporting of spatial data for each type of protected area is provided below.

### 4. GUIDANCE ON REPORTING OF SPATIAL DATA

### 4.1. Bathing water protected areas

No spatial data is required for bathing water.

The annual reporting under Bathing Water Directive 2006/7/EC (<u>http://cdr.eionet.europa.eu/help/BWD</u>) requires the identification of bathing waters by providing a point (longitude and latitude). As optional element, the WFD code and name of the surface water body and the River Basin District information are provided for each bathing water site (see <u>http://dd.eionet.europa.eu/tables/10086</u>).

If Member States have delineated bathing water areas and these are spatially different from WFD water bodies (or are even delineated outside WFD water bodies), they can report this information using the GML ProtectedArea schema under the WFD. As described in the GIS guidance and quoted above, the attribute 'zoneType' should be 'bathingWaters'. The reporting of this spatial information is <u>optional</u>.

## 4.2. Urban Waste Water nutrient Sensitive Areas

Reporting of spatial extent of sensitive areas is done through the regular reporting under the Urban Waste Water Directive 91/271/EEC (<u>http://cdr.eionet.europa.eu/help/UWWTD</u>). The available geographical information is displayed in the Urban Waste Water Directive map viewer (<u>http://www.eea.europa.eu/data-and-maps/uwwtd/interactive-maps/urban-waste-water-treatment-maps-1</u>).

Sensitive areas are identified through a unique ID (attribute rcaCode in table ReceivingAreasSAMain). This ID is the one that Member States are expected to report under the WFD attributes SWAssociatedProtectedArea/euProtectedAreaCode for the associated surface water bodies. The quality assurance under the WFD reporting process will cross-check if the ID reported as euProtectedAreaCode has been reported as a Sensitive Area and will generate an error if this is not found.

However, a special case arises in case of newly designated sensitive areas. The deadline for reporting under the Urban Waste Water Directive is 30<sup>th</sup> of June 2016. If Member States have designated sensitive areas since the last reporting under Urban Waste Water Directive, these may not yet be in the system. The next WFD reporting is due a few months earlier. This means that, if the IDs for these new areas are reported under the WFD, this will generate an error because the sensitive areas would not yet be in the system. In these cases two possibilities are suggested:

- a) to include the text "New Sensitive Area not yet reported under UWWTD" in the attribute "SWAssociatedProtectedArea/protectedAreaComment" and to ignore these errors, or
- b) Report the new sensitive area under the WFD using the Protected Area GML schema.

Given the short period of time between the two reporting exercises, <u>it is strongly suggested</u> <u>that option a above is used</u>. In any case, <u>no double reporting of spatial data for sensitive areas</u> <u>is expected: the sensitive areas should be reported either under the 2016 reporting exercises</u> <u>for WFD or UWWTD</u>. Both reporting exercises foresee to use the same GML ProtectedArea class so that the reporting of this information is standardised.

In case of late reporting under the WFD, the deadline for reporting of spatial data for UWWTD sensitive areas remains the  $30^{th}$  of June 2016.

If the Member State applies a 'whole territory' approach for the Urban Waste Water Directive, it should not report protected areas under the WFD.

# 4.3. Drinking Water protected areas (Article 7 WFD)

Water bodies identified under WFD Article 7(1) are the only protected areas that are purely designated by WFD, i.e. there is no process to identify and designate these areas under other pieces of legislation, although obviously they are relevant for drinking water supply. The Drinking Water Directive 98/83/EC refers in its Monitoring Annex II to supply zones: "A supply zone is a geographically defined area within which water intended for human consumption

comes from one or more sources and water quality may be considered as being approximately uniform". Member States may exempt very small supplies <10m<sup>3</sup>/day or serving <50 persons. Drinking water supplies/supply zones under Directive 98/83/EC are defined for drinking water monitoring purposes referring to uniform quality, and are no geographical areas for which spatial data has to be reported.

Member States practice varies in the designation of Drinking Water protected areas. The following two broad approaches could be identified in the first RBMP, for which guidance is provided as regards reporting of spatial data:

- a) Some Member States follow literally WFD Article 7 and designate as protected areas the water bodies used for the abstraction of water intended for human consumption (and those intended for such future use). Therefore there is no different spatial delineation of the protected areas: these are coincident with the WFD water bodies. Therefore, <u>no reporting of spatial data under the WFD is expected in this case</u>.
- b) Some Member States delineate the part of the water bodies which they consider are protected areas. The spatial extent of the protected areas can therefore be different, typically smaller than WFD water bodies. This is often the case in large groundwater bodies. In this case the Member State is required to report the spatial extent of the protected areas using the GML schema ProtectedArea. As described in the GIS guidance and quoted above, the attribute 'zoneType' should be 'drinkingWaterProtectionArea'.

### 4.4. Fish protected areas

The Freshwater Fish Directive (2006/44/EC) was repealed by the WFD in 2013. The WFD Reporting Guidance recalls that "according to the WFD, the level of protection should be maintained through the inclusion of the designated areas as Protected Areas under WFD". In addition, "it is considered that the WFD objective of good ecological status integrates fully the objectives of the Fish Directive".

Some Member States maintain the transposing legislation in order to maintain the same level of protection, and still consider this an important element in the protection of water resources.

Spatial delineation of the protected areas under the Freshwater Fish Directive may or may not coincide with the delineation of the WFD water bodies. It is therefore possible to report the spatial extent of these protected areas in the GML schema ProtectedArea. As described in the GIS guidance and quoted above, the attribute 'zoneType' should be 'designatedArea' and the attribute 'specialisedZoneType' should be reported as 'freshwaterFishDesignatedWater'. The reporting of this information is <u>optional</u>.

### 4.5. Shellfish protected areas

The Shellfish Directive (2006/113/EC) was repealed by the WFD in 2013. As with the Freshwater Fish Directive, after the repeal, the WFD requires Member States to maintain the same level of protection. However, in the case of the Shellfish Directive, the WFD objective of good ecological status does not integrate fully the objectives of the Shellfish Directive. Indeed, "*microbiological standards are essential for the quality of shellfish water*", and these

are not part of the definition of ecological status. Therefore, "*it is requested to report if these standards have been set (or maintained from the shellfish water directive) and if they are met*" (WFD Reporting Guidance 2016).

Given that the Shellfish Directive is no longer in force and therefore there is no self-standing reporting mechanism to report the protected areas, <u>it is required that the spatial extents of the protected areas are reported under the WFD</u> using the GML schema ProtectedArea. As described in the GIS guidance and quoted above, the attribute 'zoneType' should be 'designatedArea' and the attribute 'specialisedZoneType' should be reported as 'shellfishDesignatedWater'.

## 4.6. Nitrates vulnerable zones

Reporting of Nitrate Vulnerable Zones (NVZs) is done under the Nitrates Directive 91/676/EEC reporting process (<u>http://rod.eionet.europa.eu/obligations/106</u>). Spatial extents of NVZs were reported by Member States in shapefiles for the last time in 2012 (see guidance available in CIRCABC at <u>https://circabc.europa.eu/w/browse/bbfdad95-2d53-4ad2-ba34-5be593a45d0c</u>). A European dataset and map is available from JRC (currently at <u>http://fate-gis.jrc.ec.europa.eu/geohub/MapViewer.aspx?id=2 but likely to change shortly after the 2016</u> reporting).

The definition of the reporting requirements for NVZs does not include a unique ID for each zone (<u>http://dd.eionet.europa.eu/tables/7762</u>). The attribute ZoneID is optional and the guidance does not provide a standardised syntax for the ID. Therefore, it is not possible to cross-check the IDs reported under the WFD for NVZs with the information reported under the Nitrates Directive.

Next reporting exercise is foreseen in June 2016. The intention is to use the same guidance and tools as in the 2012 reporting. In the context of the WFD and Nitrates Directive reporting in 2016, the following guidance is provided:

- Member States should identify each NVZ with a unique EU code. This should be reported for each associated water body under the relevant WFD XML schemas SWAssociatedProtectedArea/euProtectedAreaCode or GWAssociatedProtectedArea/euProtectedAreaCode.
- The same code reported under the WFD should then be reported under the Nitrates Directive reporting in the spatial dataset. Specific guidance will be provided for the Nitrates Directive reporting in this respect.

If the Member State applies a 'whole territory' approach for the Nitrates Directive, it should not report protected areas under the WFD.

In any case, <u>no reporting of spatial data for NVZs is expected under the WFD</u>. Spatial data for <u>NVZs should be reported in the 2016 reporting exercise under the Nitrates Directive</u>.

### 4.7. Habitats and Birds Directives protected areas

Reporting of protected sites is done under the Habitats and Birds reporting processes forNatura2000sites(<u>http://rod.eionet.europa.eu/obligations/274</u> and

<u>http://rod.eionet.europa.eu/obligations/616</u>). The information available is displayed in the Biodiversity Information System for Europe (BISE, see Natura 2000 viewer <u>http://natura2000.eea.europa.eu/</u>). Member States are expected to identify the water dependent protected areas associated with water bodies under the WFD schema classes SWAssociatedProtectedArea and GWAssociatedProtectedArea. This is done by reporting the Habitats and Birds Directive site code in the attribute euProtectedAreaCode. The WFD reporting process will automatically cross-check if the site ID is on the list of reported Natura 2000 areas. If this is not the case, the system will generate an error.

Where Member States identify water dependent protected areas among nationally designated areas, this can indicated by reporting the CDDA SITE\_CODE in the attribute euProtectedAreaCode. The WFD reporting process will automatically cross-check if the site ID is on the relevant EIONET's vocabulary. If this is not the case, the system will generate an error.

No reporting of spatial data regarding Natura 2000 or nationally designated (CDDA) protected areas is expected under the WFD.