|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 1 | 2 | (3) | 4 | 5 | (6) | (7) |
| **Id[[1]](#footnote-1)** | **Name** | **Chapter, section or clause no./ Subclause No./ Annex[[2]](#footnote-2)** | **Paragraph/ Figure/Table/Note[[3]](#footnote-3)** | **Type of com-ment[[4]](#footnote-4)** | **Comment (justification for change)** | **Proposed change[[5]](#footnote-5)** | **WG A observations** on each comment submitted |
| **1** | **IGN Spain** | **1** | **5** | **T** | **When it said …”*Core theme Hydrography focuses on the description of inland waters (rivers, lakes)*,…” it should be included reservoirs as example of core. Because, as it said: … *ensure correct topology of the hydrographic network*….and it is necessary the reservoirs** | **Core theme Hydrography focuses on the description of inland waters (rivers, reservoirs, lakes), ….** | **AwM**  **The list is effectively not exhaustive ; many terms might be added such as “reservoirs” as proposed but also ponds, canals, …**  **For the executive summary, the best solution is to keep short list but to indicate that we provide just examples “(rivers, lakes …)”** |
| **2** | **IGN Spain** | **3.1** | **1** | **T** | **Again: it should be included, and remark in interoduction, the reservoirs as core object, although standingwater includes it. *Definition: Theme Hydrography relates to the description of surface inland waters. It includes the***  ***hydrographic network and associated drainage basins, lakes, rivers, other inland water features and***  ***the shoreline. [WG A definition]*** | ***Definition: Theme Hydrography relates to the description of surface inland waters. It includes the***  ***hydrographic network and associated drainage basins, reservoir, lakes, rivers, other inland water features and the shoreline.*** | **NA**  **The term “reservoir” may be confusing. The most generic definition is “a place where something is kept in store”** **=> for some people, it will evoke storage constructions**  **More HY oriented definition is “A large natural or artificial lake used as a source of water supply.”**  **=> reservoir is a lake that is used for water storage.**  **=> lakes being already included in the definition, no need to add the specific case of reservoirs** |
| **3** | **Ordnance Survey** | **3,2** | **2** | **G** | **In addition to transport systems, hydrography influences the built environment** | **include statement that watercourses and their floodplains influence built development** | **A** |
| **4** | **Environment Agency (UK)** | **4** |  | **G** | **A suggested addition would be guidance on the approach to creating identifiers for all the various things that should have them, including namespacing. We would suggest the linked data approach of using URIs as identifiers as an option for this as that then tackles the namespace issue, ensures that identifiers can be globally unique, and that everyone knows which set of data someone is talking about. There is guidance on this from the W3C/OGC Spatial Data on the Web working group at https://www.w3.org/TR/sdw-bp/#bp-identifiers** | **Add section on guidance for creating identifiers** | **NA**  **The survey of user requirements has not shown such need.**  **WG A is aware that URIs identifiers are useful for Linked Data but this was not identified as a priority for theme HY.** |
| **5** | **Environment Agency (UK)** | **4** |  | **G** | **Provide guidance on persistence of identifiers - what constitutes enough of a change that something should be issued with a new identifier?** | **Add section on persistent identifiers** | **NA**  **There has been some discussion in INSPIRE on this topic with the conclusion that there may be different valuable rules for management of persistent identifiers, i.e. none really better than the others.**  **In addition, WG A has not collected user requirements on this topic.** |
| **6** | **Czech** | **4.1.2** | **Table 2 TEN identifier** | **T** | **TEN identifier is assigned to watercourse in table but to watercourse link in figure 7, 7.1.1.2** | **correct table 2, move TEN ID to watercourse link ( not whole watercourse agregated by name will be navigable and share TEN ID)** | **A** |
| **7** | **BKG/ AdV** | **4** | **4.1.2** | **T** | **Watercourse has an attribute “TransEuropean Transport Network identifier” which implied to be an identifier. The value of these attribute is Boolean. This does not fit together.** | **Either TransEuropean Transport Network (like ‘TEN’ in ERM) with Boolean or**  **TransEuropean Transport Network identifier with a CharacterString.** | **First option accepted** |
| **8** | **BKG/ AdV** | **4** | **4.1.2** | **T/Q** | **WatercourseLink has no hydroIdentfier anymore. It is unclear to us how to link WatercourseLink with Watercourse** | **Add attribute hydroIdentfier to WatercourseLink** | **NA**  **The link may be done using the common attribute “identifier”** |
| **9** | **BKG/ AdV** | **4** | **4.1.2** | **T** | **No information about width of watercourse** | **Add attribute width to WatercourseLink** | **NA**  **This was not identified as a key requirement.**  **In addition, this information may be derived from the geometry of the WatercourseArea feature, when present.**  **A sentence has been added to NOTE 1 in 4.4.3 to mention the width range attribute of ERM/EGM on Watercourse Links.** |
| **10** | **BKG/ AdV** | **4** | **4.1.2** | **E** | **Under NOTE 1: …Ministers of Transport »).** | **Replace by: Transport”).** | **A** |
| **11** | **BKG/ AdV** | **4** | **4.1.2** | **E** | **Under NOTE 2: …and “hydroIdentifier .** | **Replace by: “hydroIdentifier”.** | **A** |
| **12** | **Czech** | **4.1.2** | **NOTE 1** | **E** | **CEMT boolean : alternative solution is not included in Table 2 of Figure 7.** | **Either create the necessary atribute, or drop the note** | **NA**  **The table provide the general recommendations and the notes may provide the possible exceptions or options.**  **Including everything in the table might be more confusing than helpful.** |
| **13** | **Swisstopo** | **4.1.2** | **Note 2** | **T** | **There are many cases, where the name of a watercourse changes while the identifier stays the same, because it is in fact one watercourse. The name isn't a appropriate criteria to aggregate watercourse links to watercourses.** | **A Watercourse is an aggregate of all the watercourse links having the same identifier.** | **A**  **The practice may depend on countries and on watercourses.**  **Definition of watercourses has been changed to be more generic, name and identifier being possible aggregating factors.** |
| **14** | **Czech** | **4.1.2** | **NOTE 2** | **T** | **Quite often "name" can change for single water stream according to district it flows through. So "name" is not best aggregation factor. Our hydrologist keep "stream ID" for identifiyng watercourse from source to outlet** | **Open to discussion, if "name" is best watercourse link agregator** | **A**  **The practice may depend on countries and on watercourses.**  **Definition of watercourses has been changed to be more generic, name and identifier being possible aggregating factors.** |
| **15** | **IGN-France** | **4** | **4.1.2** | **T** | **Attribute "flow" : It is the case in ERM, too. Nonethelss it might be simpler to consider that the watercourse link should be captured directly according to the waterflow and precise “bothDirection” (with a Boolean) when necessary. It is the option kept in the MIAS project (Mapa Integrado de America del Sur). This option could enable to create a real network.** | **Consider this proposal.** | **NA**  **It might be too demanding for native capture, as there are existing data already.** |
| **16** | **BKG/ AdV** | **4** | **4.1.3** | **T** | **No information (beside the area feature itself) about width of watercourse area. It should not be an alternative solution as mentioned in the note.** | **Add attribute width to WatercourseArea which has to be filled by data producers** | **NA**  **width may be derivable from the WatercourseArea geometry.**  **A sentence has been added to NOTE 1 in 4.4.3 to mention the interest of the width range attribute of ERM/EGM on Watercourse Links.** |
| **17** | **Ordnance Survey** | **4.1.3** | **Note 1** | **T** | **As we read the document, the statement "The feature WatercourseArea provides an information about the width of the watercourse.” is incorrect. Width could be derived from WatercourseArea, but unless it’s an explicit attribute, it doesn’t in itself provide information on the width of a watercourse.** | **Amend Note to say that width may be derivable from WatercourseArea.** | **A** |
| **18** | **Czech** | **4.1.3** | **NOTE1** | **E** | **width is not included in watercourse link attributes, to facilitate proposed alternate solution** | **include the "with" parameter with watercourse link, as optional (Table 2)** | **NA**  **The table provide the general recommendations and the notes provide the possible exceptions or options.**  **Including everything in the table might be more confusing than helpful.** |
| **19** | **Ordnance Survey** | **4.1.3** | **Table 3** | **T** | **Shore requires definition. Given the various allowable interpretations of Shoreline, what does Shore represent? The area between high and low water, above high water or something else?** | **Clarify definition/scope of Shore.** | **NA**  **WG A has reused INSPIRE terminology and kept the INSPIRE definitions => to keep the document short and easily readable, it is better not to replicate the definitions.**  **According to INSPIRE and IHO, Shore is “The narrow strip of land in immediate contact with any body of water including the area between high and low water lines.”** |
| **20** | **IGN Spain** | **4.1.3** | **Table 3** | **T** | **All features except DAM, LOCK, and FALLS should identify the “water bodies” where water policies are applied. Priority 1, in Europe to satisfy Water Frame Directorate also is important for geometric definition. This is crucial because combines the three fundamental aspects of hydrological information: cartographic model, network and reporting** | ***Include and attribute as a water body identifier with cardinality 0..1. Priority 1. Name for attribute: thematicId (in relation to WISE\_GISGUidance,that include the value for the euSurfaceWaterBodyCode)*** | **NA**  **Core data should apply to whole geographic Europe; including countries not having to apply the WFD.** |
| **21** | **IGN Spain** | **4.1.3** | **Table 3** | **T** | **Standing water should be included two more attributes: “hydroIdentifier” because it should be linked to and official inventory, especially for reservoirs. And another attribute “elevation” (Z value) because it is necessary for the definition and identification of the geometry.** | **Include two more attributes for standingWaters: hydroIdentifier and elevation with priority 2.** | **A (hydro identifier)**  **NA (elevation)**  **“elevation” has not been identified as a key user requirement. In addition, WG A recommends to capture geometry as 2.5D data that will enable to derive the Z value.** |
| **22** | **IGN Spain** | **4.1.3** | **Table 3** | **T** | **Priority for attribute “origin” Shore should be 1.**  **it is necessary to distinguish to guarantee maintenance** | **Priority 1 for attribute “origin” in feature Shore.** | **NA**  **From the investigations conducted by WG A, “origin” was considered as priority 2 information.** |
| **23** | **Environment Agency (UK)** | **4.1.4** | **Note 3** | **T** | **The outcome of this note is unclear. If entities ‘should’ be kept as deprecated then shouldn’t the Core Recommendation include that, even if retrospective management of history of features is only good practice?** | **Review and clarify note/core recommendation** | **NA**  **Management of life-cycle has been considered by WG A as a good practice => this is why the begin/endLifespanVersion attributes are under priority 2 in table 1.**  **Priority 1 and priority 2 recommendations are both things that should be done, but with less pressure regarding priority 2 actions.** |
| **24** | **Czech** | **Multiple**  **(4.1.4)** | **multiple endlifespanVersion** | **G** | **despite explanation in chapter 4.1.4 , with respect to Core recommendation 2, only valid data will be included in core data, therefore attribute will always be empty ( unless it's prediction of the end of existence of real world entity)** | **Delete atribute "endlifespanVersion" from core data model, the requirement to keep deprecated versions in sufficiently formulated as "Good practise 2"** | **NA**  **There is some misunderstanding in the comment; according to the deliverable**   * **Priority 1 is to capture valid features (without going in the past)** * **Once done, priority 2 is to keep the captured features in the database even if they become deprecated. The attribute endLifespanVersion is expected to provide this « deprecated » information.** |
| **25** | **Ordnance Survey** | **4,2** | **Note 1** | **E/T** | **Note1 doesn’t read consistently with the recommendation. The recommendation says ‘at least at Master Level 1’, but the note says ‘ideally…at Master Level 1’. The emphasis in the note is slightly wrong. Master Level 0 would be acceptable. Also, note 1 does not allow generalisations from Master Level 0.** | **It would be helpful to lose the word ‘ideally’ as this is ambiguous. How about, “The initial capture of Hydrography data should be done at Master Level 1 or better' or '...at least at Master Level 1”. Amend note to allow generalisations from Master Level 0.** | **A (Master level 0)**  **“or better” has been added.**  **AwM**  **NOTE 1 has been rephrased.** |
| **26** | **Ordnance Survey** | **4.4.1** | **Good practice 3** | **G** | **As potentially a significant organisational/legal/regulatory change in some countries, this Good Practice would benefit from an articulation of why.  What are the benefits of doing so? Why is it considered good practice? What's in it for organisations/member states/UN?** | **Articulate the value & benefit of a co-ordinated single production database** | **The rationale for a single database is provided above the Good Practice: avoid duplication of geometries of common features (and so possible discrepancies), provide more user-friendly data.**  **WG A is aware of feasibility issues on organisational topics: this this why it is only a good practice and not a core recommendation.** |
| **27** | **IGN Spain** | **4.4.1** | **1 and 2** | **T** | **In line with previous commnent: hydrograhy in INSPIRE opted for a classification based upon the physical water types (lakes, rivers,…) but a waterbody (WFD) is directly related to a physical body of water. The COMMISSION REGULATION (EU) No 1089/2010, quotes in its ANEX, point 8.7.4.4: “The geometry shall be the same as the geometry used for reporting obligations under Directive 2000/60/EC”. Reporting units area modelled in Anex III of INSPIRE. So it is need to consider not only for physical water, network and navigability also for reporting purposes with a single production dataset with NMCAs and Water Officers** | **Title 4.4.1: Single production data set for Hydro Network, Physical Waters reporting units and navigability.**  **An second paragraph: However, the recommendations for content of core theme, are recommending, for each expected**  **level of detail, a single production data base from which the INSPIRE sub-themes Hydro Network,**  **Physical Waters and reporting units could be derived.** | **AwM**  **Core data is for whole geographic Europe, i.e. also for countries not having the obligation to report for European Directives.**  **A NOTE will be added to mention the reporting units.** |
| **28** | **Ordnance Survey** | **4.4.2** | **Core recommendation 5, Note 1** | **T** | **Master Level 1 ranges from 1:5000 to 1:25000. Particularly at the smaller scale end of this range, it’s appropriate to represent some features as points, e.g. waterfalls on mountain streams** | **Amend to say 'At Master Level 1, the relevant geometry may be a surface, a curve, or in limited cases, a point.'** | **A** |
| **29** | **Czech** | **4.4.2** | **Core recommendation 6** | **Q** | **2,5D is generaly considered to be 2D geometry with elevation supplied in form of single value (height of building, etc.) In hydrography this may be applicable for "standing waters". When each captured vertex includes Z coordinate, it is considered 3D? Or, if what is proposed for Core data is 2,5D, how would 3D be different?** | **either use 3D, or explain the 2.5D concept for better understanding** | **A**  **Explanations about 2,5D data will be added.** |
| **30** | **Ordnance Survey** | **4.4.2** | **Core recommendation 6, Note 2** | **E** | **It doesn't conceptually sound difficult to have generalised z information at small scales. And technology and software constantly evolves. Even if deemed difficult/impossible now, it may not be in the future.** | **Amend note 2 to say '...at Regional and Global levels, Z information may be kept during the generalisation process.'** | **NA**  **This is not only a question of technology but it is due to the impact of the generalisation process itself. At large scale, a vertex has to be created when there is a change in direction or in slope. With the generalisation process, some of these vertices have to be removed and for watercourses, the slope information that could be derived from the 2,5D would no longer be reliable.** |
| **31** | **Lithuania**  **Environmental protection Agency** | **4.4.2** | **Core recommendation 6** | **Q** | **Please specify whether this recommendation applies only to rivers and canals or all the objects under the theme Hydrography; Still, we consider it quite a challenging task for Lithuania to implement such recommendation properly, at least for now, because of the financial and time resources it would likely demand.** |  | **The recommendation applies to hydrographic network, i.e. to watercourse links and watercourse nodes.**  **Capturing 2,5D data has great benefits and may be, these UN-GGIM: Europe recommendations could be used as rationale to get necessary funding.** |
| **32** | **Ordnance Survey** | **4.4.3** | **Note 2** | **E** | **It's not clear what is meant by the terminology ‘in opposite’** | **Review & clarify sentence** | **A**  **“in opposite” has been replaced by “since”** |
| **33** | **Lithuania**  **Environmental protection Agency** | **4.4.5** | **Core recommendation 8** | **Q** | **We suppose a reference shoreline should be updated constantly? Or the update frequency should be 6 years, according to 4.5.4?** |  | **General recommendation and notes about update frequency also apply to the reference shoreline:**   * **6 years for natural changes** * **- continuous update in case of human action** |
| **34** | **Lithuania**  **Environmental protection Agency** | **4.5.3** | **Core recommendation 10** | **G** | **In some real-life cases, it’s not always clear where to start or end a fictitious geometry of watercourse (e.g. when wide-mouth watercourse flows into other waterbody). Technical documentation regulating the determination of the topology of watercourse links is needed in these cases.** |  | **You are perfectly right; However, this detailed technical documentation is out of scope of WG A.** |
| **35** | **Lithuania**  **Environmental protection Agency** | **4.5.3** | **Figure 4** | **Q** | **Please confirm if dataset modelling option in Figure 4 meant to be used in 2.5 D datasets?** |  | **AwM**  **A NOTE has been added. This modelling option should be used both for 2D or 2,5D data.** |
| **36** | **IGN Spain** | **5.3** | **NOTE 2** | **T** | **Include/delivery the themathic Identifier related to the reporting unit (WFD)** | **Text for NOTE 2: Core data may be used to derive the INSPIRE data on HydroNetwork on**  **PhysicalWaters and on reporting units** | **NA**  **Core data should apply to whole geographic Europe, including countries not having to apply the WFD and to use reporting units**  **However, a note has been added about reporting units, mentioning the interest for countries having to report for EU Directives.** |
| **37** | **Ordnance Survey** | **6,2** | **1** | **E** | **Hydrography is both a network & topographic description of rivers, lakes, drainage basins, etc.** | **Add the word 'network', or change word order to read 'The core theme Hydrography is limited to a basic description of topographic rivers, lakes, drainage basins, etc.'** | **A**  **“topographic” has been removed** |
| **38** | **Ordnance Survey** | **6,2** | **Figure 5** | **E** | **The diagram is unclear and it’s difficult to work out what it’s illustrating and what the various lines and shapes represent.** | **Review & clarify diagram** | **A**  **Clearer illustration has been provided** |
| **39** | **Environment Agency (UK)** | **6,2** |  | **G** | **Link 4.1.4 Temporal Aspects and 6.2 Linking data to theme hydrography. As well as the challenge of linking business data to hydrography data when generalised, there is also the challenge of e.g. linking decades of monitoring data if past features are not considered to be core** | **Add further examples of linking time series data to hydrography** | **A**  **A paragraph has been be added on this topic.** |
| **40** | **IGN Spain** | **7.1** |  | **T** | **Include model for reporting units** | **Include one new submodel for modelling reporting unit in line with INSPIRE Data Specification Anex B .4.1.4 . B.4.1.4 Extension of INSPIRE reporting units** | **NA**  **Core data should apply to whole geographic Europe, including countries not having to apply the WFD and to use reporting units** |
| **41** | **Czech** | **7.1.1.2** | **Figure 7** | **E** | **Pfafstetter Code :code is included in Figure 7 as "good practice" but missing in Table 2** | **include in Table 2** | **NA**  **Opposite solution: remove from Figure 7** |
| **42** | **Czech** | **7.1.1.2** | **Figure 7** | **E** | **WFDWaterbodyCode : code is included in Figure 7 as "good practice" but missing in Table 3** | **include in Table 2** | **NA**  **Opposite solution: remove from Figure 7** |
| **43** | **Swisstopo** | **7.1.2** | **Paragraph 3** | **T** | **idem** | **This document recommends a feature Watercourse, defined as a set of neighbour watercourse links having the same identifier.** | **Idem (see comments 14 and 15)** |

1. For internal use only. Not to be completed by reviewers. [↑](#footnote-ref-1)
2. Use "3.1" instead of "Clause 3.1" or "Chapter 6.1". This makes grouping of comments easier. [↑](#footnote-ref-2)
3. E.g., Table 1 [↑](#footnote-ref-3)
4. Type of comment can be G (general), E (editorial), T (technical), or Q (question) [↑](#footnote-ref-4)
5. The proposed change must be as precise and concrete as possible. [↑](#footnote-ref-5)