WQX v2.0 Draft Bio Schema Issue Log – updated 07/19/2007

Issue No.	Issue Name	Description	Examples	Options	Action 07/19/2007
1	**Accuracy and reporting of Terms (Metrics vs Results)**	Given similarities between the types of data that we report as Metrics as opposed to Results, is it possible that same items are being reported in a different manner (leading to less consistent data).	In evaluating an IBI Score, we might have metrics like the following (among others): 1. Number of Native Species 2. Percent Anomalies 3. etc. Likewise, the following might be reported as Results rather than Metrics: 1. Number of Brook Trout (reported as Multi-Taxon Population Census) 2. Number of Anomalies (reported as Single Taxon Frequency Class). These concepts seem very similar.	Tweaking Metrics or Frequency Class Information would allow us to model the same things in two different places. After the Pilot, and with feedback, determine if it is appropriate to merge certain concepts.	STORET Team will go through STORET characteristics domain list and determine what characteristics may be metrics
2	**Index vs. Metric vs. Result**	Should Indices and Metrics be separate at all or should they just be characteristics that results get reported under? What is the value of having a separate area in the schema for metric and index?		If index and metric remain as separate data blocks, there will be a domain value list for both index and metrics (those that may be considered widely used or "national" in use), as well as the ability for users to define their own. This is similar to the way the analytical method domain value list works.	Dwane will write up and send out the two options of having index and metric as separate data elements vs. having the metrics and indices be additions to the characteristics list.
3	**Total Sample Weight**	Should total weight of a sample just be captured as a characteristic versus a separate sample description?			Group recommends we make total sample weight a result level characteristic.
4	**ActivityIndex and ActivityMetric Citation**	Should we add a citation data element for ActivityIndex and ActivityMetric data blocks?			Include citation elements for Index and Metric data blocks.

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5	**TaxonomicDetails Citation**	Should an optional citation data element be available for the TaxonomicDetails data group: FunctionalFeedingGroupName, TaxonomicPollutionTolerance, and TrophicLevelName? Different sources may cite different values for the same organism.			Include citation elements for taxonomic details data group.
6	**Citation for other areas of schema**	Citations at all areas of the schema that seem appropriate? ■ reference location indicator ■ all methods (sample prep, collection, analytical)			Include citation in these areas of the schema as well.
7	**ActivityIndex and ActivityMetric structure**	Are ActivityIndex and ActivityMetric modeled properly so that Indices may pertain to a given site, monitoring location, or geographic area (i.e. transcend multiple activities or activity locations)?		Have an Activity Type of "Index" that would restrict Activity data to just ActivityIndex and Activity Metric data blocks so that you could ensure that the Index is associated with a given Monitoring Location. Possibility of also having an Activity Group Type of Index to allow other activities to be associated with the Index.	Need to follow up and model out, depending on decisions for issues 1 and 2.
8	**Index and Metric scale**	How do the Index or Metric Scale data elements indicate whether a value is "good" or "bad" (e.g. when high scores are bad)? What about "1-3-5" scales?		Already planning on making the Scale data elements have lower and upper bounds, so that both end values are ensured to be provided. Not sure where description of the scale would be provided. Would having a citation be enough?	Group recommends that a citation will be sufficient to provide information about what an index or metric value or score means.
9	**Index and Metric comment**	Should we add comment data fields to Index and Metric data blocks?			
10	**Metrics with no Indexes**	How Index and Metric are modeled currently, Metrics can't exist without an Index as a parent. What happens to Metrics that don't end up getting rolled up into Indices?		May have an Index name or type of "dummy index" that provides a place for metrics that aren't associated with an index.	
11	**Statistical approach to indexes**	How do you capture the statistical approach to many indices?	O/E; RIVPACS		
12	**Metric calculation from replicates**	Could the current model handle a scenario where a metric is calculated based on the average of two metrics drawn from 2 replicate samples?			

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13	Sites that don't allow for Index calculation	What about sites that don't yield enough individuals for index calculation? Should be able to indicate this (that the index wasn't calculated). Should a qualifier to indicate this be added to the Activity Index?	"Z" qualifier may indicate that index was not calculated because there weren't enough bugs		
14	Reporting site condition	Will the schema allow for reporting condition (good/fair/poor) as determined within a probabilitistic monitoring design?			Still open – Dwane will present this question to the NWQMC next week.
15	Other biological methods	Separating out just electrofishing and net tow methods for biological monitoring seems narrow in that there are many other methods for biological monitoring that states use	WI Lake fish surveys use passive nets, no data elements for net type, size, duration		
16	Other net tow elements	Net Tow data elements ■ need to be able to capture net area and net mesh size			
17	Unidentified Species Indicator field length	Should we make the UnidentifiedSpeciesIdentifier a longer field to be able to handle full taxa names (ie a taxa is reported that is not in ITIS)			
18	Reference site date range	Should there be a date range for reference site within the monitoring location weighting block?	A given site is a reference site for a specific amount of time		
19	Control sites	What about monitoring locations that are "control sites" – not reference sites, but sites that are used for comparison	Monitoring is down before and after a change in a point source's permit – the monitoring done before the change may have series of "control sites"		
20	Groundwater	Ground water data elements???			
21	Dilution data element	Do we need to add a dilution data element for sample preparation data elements?			
22	Geo method accuracy data elements	Need to add Geopositioning Method accuracy data elements (MAD Codes)			
23	"as N" issue	Need to add Chemical speciation data element (e.g. "as N" issue)			
24	Personnel and lab cert fields	Should we add personnel, and Lab Certification fields?			

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25	**Other business rules**	What other business rules should we include? The schema as is is very open and flexible.			
26	**Metric and Index ratings at the project level**	From a data modeling perspective, may be good to allow metric and index definitions and ratings (whether the metric or index values are good/fair/poor) at the project level, so that this is defined for all data reported, doesn't need to be repeated over and over again.			