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1. According to information from Table A9 of Appendix A, the following waterbody AUs should have been included in Table A1. Please clarify.

MAJOR BASIN	14-DIGIT HUC	COUNTY	AUID DELISTED AND RETIRED	ORIGINAL AU NAME	CAUSE OF IMPAIRMENT OF ORIGINAL AU	NEW AUID	NEW AU NAME	2008 CAT 5A
GREAT LAKES	5120111030050	VIGO CO	INB1135_T1032	NORTH BRANCH OTTER CR - LITTLE CR TO MOUTH	E. COLI	INB1135_01	OTTER CREEK, NORTH BRANCH (COAL BLUFF, IN)	X
UPPER ILLINOIS	7120001090150	PORTER CO	INK019F_T1018	BREYFOGEL DITCH	IMPAIRED BIOTIC COMMUNITIES	INK019F_01	BREYFOGEL DITCH	
						INK019F_T1005B	COBB CREEK - UNNAMED TRIBUTARY (HEBRON, IN)	X
UPPER ILLINOIS	7120001130010	LAKE CO	INK01D1_T1107*	EAST BRANCH STONY RUN	TOTAL DISSOLVED SOLIDS	INK01D1_03*	STONY RUN, MIDDLE BRANCH	X

*Resegmented waterbody AU appears listed in Table A13 of Appendix A under INK01D1_03 for chlorides and nutrients impairments but appears listed with retired ID (INK01D1_T1107) for TDS. Please clarify and fix.

IDEM Response:

INB1135 T1032

The purpose of Table A1 is to track only the application of previously listed impairments to new AUs as a result of changes in segmentation. Although this AU was indeed split in 2008, it does not appear in Table A1 for E. coli because it was not previously listed for E. coli. The E. coli impairment was newly identified in 2008 and was therefore treated as an addition to list rather than a previously listed impairment re-applied to a new AU. This impairment appears in Table A9 correctly keyed to the type of addition it represents and in Table A13 as a Category 5A listing. Therefore, no corrections to IDEM's listing tables are necessary for this AU.

INK019F T1018

The original AUID for INK019F_T1005B was incorrectly shown in Table A9 as INK019F_T1018. The original AUID for this AU was INK019F_00, which was not previously listed for impaired biotic communities (IBC). Because INK019F_00 was not previously impaired for IBC, and the purpose of Table A1 is to track only the application of previously listed impairments to new AUs resulting from changes in segmentation, this resegmentation will not be added to Table A1. The IBC impairment now associated with INK019F_T1005B correctly appears in Table A13. Table A9 will be revised to show the correct original AUID and key code indicating that this is a newly identified impairment on an AU resulting from resegmentation.

IDEM has verified that the original IBC impairment on INK019F_T1018 should be applied to the new AU INK019F_01. Table A1 will be revised to show that this impairment was correctly applied to INK019F_01. This AU will also be added to Table A9 as an addition to the list keyed as a reapplication of a previously identified impairment and to Table A13 as a Category 5A listing.

INK01D1 T1107

IDEM concurs that INK01D1_T1107 should be added to Table A1. This impairment was originally proposed for delisting based on the change in Indiana's WQS but was added back to the list based on IDEM's decision not to delist any impairments based on these changes until the WQS are approved by EPA. The TDS impairment was added back to Category 5 under its original AUID (see Table 2 in IDEM's finalized 303(d) narrative submission). The TDS impairment was mistakenly added back to Table A13 under its original AU instead of the new AU to which the TDS impairment was applied (INK01D1_03). IDEM will add this resegmentation to Table A1 and will replace the original AU associated with the TDS impairment Table A13 (INK01D1_T1107) with the new AU to which the TDS impairment was applied (INK01D1_03).

2. The following waterbody AUs are included in Table A14 of Appendix A as part of Category 5, but there were also included in Table A8 of Appendix A. Please clarify the status of these waterbody AUs as listed or delisted.

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BASIN	14-DIGIT HUC	COUNTY	ASSESSMENT UNIT ID	ASSESSMENT UNIT NAME	CAUSE OF IMPAIRMENT	DELISTED REASON PROVIDED
GREAT LAKES	4100005010130	ALLEN CO	INA051D_M1001	MAUMEE RIVER	PCBs in Fish Tissue	IDEM has no fish tissue data to support original assessment. The data used to make the original assessment was collected on a different waterbody and is not representative of this AU
GREAT LAKES	4040001020020	LAKE CO	INC0122_T1097	Grand Calumet River - Gary to Indiana Harbor Canal	PCBs in Fish Tissue	IDEM has no fish tissue data to support original assessment. The data used to make the original assessment was collected on a different waterbody and is not representative of this AU
UPPER ILLINOIS	7120002020060	JASPER CO	INK0226_T1004**	IROQUOIS RIVER	PCBs in Fish Tissue	IDEM has no fish tissue data to support original assessment. The data used to make the original assessment was collected on a different waterbody and is not representative of this AU

**Resegmented waterbody AU; now listed under INK0226_T1004B.

IDEM Response: These impairments were included in Table A8 in error. IDEM has verified that fish tissue data for these waters indicate impairment. Therefore, they will be removed from Table A8 and will remain in Table A14.

3. The following waterbody AUs/ impairments, which were previously listed in the 2006 cycle, don't appear listed in the Category 5 list submittal for 2008 (Table A13 and Table A14 of appendix A) but there were no reasons found to be provided for these deletions. Please explain.

WATERBODY SEGMENT ID	WATERBODY SEGMENT NAME	CAUSE OF IMPAIRMENT	BASIN	14-DIGIT HUC	COUNTY
INB0424_00	BLUE RIVER (COLUMBIA CITY)	IMPAIRED BIOTIC COMMUNITIES	UPPER WABASH	5120104020040	WHITLEY CO
INE0235_00	SQUAW CREEK	SULFATES	OHIO TRIBUTARIES	5140202030050	WARRICK CO
INP0951_00	FLAT CREEK HEADWATERS	SULFATES	PATOKA	5120209050010	PIKE CO
INW0262_00	BLACK CREEK-BREWERS DITCH	SULFATES	WEST FORK WHITE	5120202060020	GREENE CO
INW0322_T1002	BIG WALNUT CREEK-ERNIE PYLE MEMORIAL	PCBs in Fish Tissue	WEST FORK WHITE	5120203020020	PUTNAM CO

IDEM Response:

INB0424_00

This impairment was delisted as a result of resegmentation. The original assessment was applied to one of the two resulting assessment units and should have appeared in Table A9 as an addition to the list. However, this particular AU has been resegmented twice making it more complex than most to track. INB0424_00 was first split in 2006. The original AU was not retired at that time but was instead reassigned to a smaller AU. In 2008, the smaller INB0424_00 was split again and retired. Table A1 incorrectly shows all the AUs resulting from both splits instead of just those resulting from the 2008 split. In addition, INB0424_00 was also impaired for E. coli in 2006 (The original Table A1 shows only the IBC impairment). Upon closer review, IDEM has found that for the impairments associated with this resegmentation, not all of the resulting changes to the 303(d) list were correctly carried through to the appropriate listing tables submitted for 2008. Therefore, the following corrections will be made to IDEM's listing tables (see the table below):

- The AUs resulting from the 2006 resegmentation will be removed from Table A1 to clarify what has actually changed for the 2008 cycle.*
- The IBC impairment to INB0424_00 correctly appears in Table A5 as a delisting resulting from resegmentation. The IBC impairment was applied to INB0424_02, which correctly appears in Table A9 as an addition to the list and in Table A13 (Category 5A). No corrections are needed for the IBC impairment originally listed under INB0424_00.*
- The E. coli impairment originally listed as INB0424_00 will be added to Table A1. This impairment will also be added to Table A5 as a delisting resulting from resegmentation. The original E. coli impairment was applied to INB0424_02 and INB0424_03. INB0424_02 already correctly appears in Tables A9 and A13 (Category 5A) for E. coli. The E. coli impairment to INB0424_03 will be added to these tables.*

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Upon further investigation into the segmentation tracking for these AU splits, IDEM also identified another impairment inadvertently omitted from Table A1. INB0424_01, which was originally listed for E. coli in 2006 was re-indexed and combined with INB0424_03 in 2008, and the AU was retired. Therefore, the original E. coli impairment for INB0424_01 will be added to Table A1 (see table below). Because the impairment was applied to INB0424_03, no additional changes to listing tables will be needed once the corrections described above are complete.

Original AUID (after 2006 split)	Original AU Name (after 2006 split)	Cause of Impairment to Original AU (2006)	Original AU Size (after 2006 split)	New AUID (2008)	New AU Name (2008)	New AU Size (2008)	2008 Category 5A
INB0424_00	BLUE RIVER (COLUMBIA CITY, IN)	IMPAIRED BIOTIC COMMUNITIES	4.17	INB0424_02	BLUE RIVER (COLUMBIA CITY, IN)	3.90	X
				INB0424_03	BLUE RIVER (DOWNSTREAM OF COLUMBIA CITY)	2.65	
INB0424_00	BLUE RIVER (COLUMBIA CITY, IN)	E. COLI	4.17	INB0424_02	BLUE RIVER (COLUMBIA CITY, IN)	3.90	X
				INB0424_03	BLUE RIVER (DOWNSTREAM OF COLUMBIA CITY)	2.65	X
INB0424_01	BLUE RIVER (DOWNSTREAM OF COLUMBIA CITY)	E. COLI	1.99	INB0424_03	BLUE RIVER (DOWNSTREAM OF COLUMBIA CITY)	0.99	X

INE0235 00; INP0951 00; INW0262 00

These impairments correctly appeared on IDEM's draft 2008 303(d) list. They were inadvertently omitted from Table A13 (Category 5A) in IDEM's finalized list submission. They will be added back to Table A13.

INW0322 T1002

This impairment does not appear on the 2006 List of Record for Indiana, which was provided to by EPA shortly after the 2006 303(d) list was approved. This AU appears on Indiana's approved 2006 303(d) list for having a FCA for Mercury, not PCBs. Regarding the 2006 FCA for Mercury impairment, IDEM's statewide reassessment of fish tissue data found that there was no site-specific data for this AU to support listing for mercury in fish tissue. Therefore, the mercury impairment listed in 2006 appears in Table A8 as a delisting.

Please verify if the following stated information is still valid for the Category 4C waterbody AUs identified by Indiana in Table 4 of Appendix D:

The waters identified in Category 4C have a low Index of Biology Integrity (IBI) score which indicates poor biology. However, IDEM has sampled the same locations for chemistry data and has found no violations of the applicable standards. Thus habitat is impaired, but it is not caused by a pollutant. If a pollutant was known to cause the low biological results these waters would be placed on Category 5. The pollution sources for these waters were found to be the following:

- Hydromodification (Channelization), which refers to the straightening of a channel and/or destruction of instream habitat. This source is typically attributed to waters with impaired biotic communities where the chemical data reveals no pollutant loadings that are driving the impairment, and the primary source of the impairment is straightening of the channel and/or the destruction of instream habitat. This source may or may not be associated with continual drain maintenance and is determined on a case-by-case basis at the time assessments are made.
- Habitat Modification, which refers to destruction or removal of instream habitat due to activities other than hydromodification. This source is analogous to hydromodification in that it is typically attributed to waters with impaired biotic communities where the chemical data reveals no pollutant loadings that are driving the impairment, and the primary source of the impairment is the destruction of instream habitat. This source is commonly associated with continual drain maintenance.
- Natural Sources, which refers to naturally intermittent streams with flow regimes such that they cannot achieve oxygenation sufficient to meet Indiana's water quality standards for dissolved oxygen or sustain a healthy aquatic

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community. This source is typically associated with low dissolved oxygen impairments or impaired biotic communities.

IDEM Response: IDEM has no new data or information to suggest that the status of these waters has changed since the 2006 listing cycle or that any of the impairments previously placed in Category 4C are attributable to pollutant sources. Therefore, IDEM considers this information valid.

4. Please submit an updated version of IDEM's long term (15 year) TMDL development schedule. Included along with this comments is an excel file that contains the 2006 cycle submitted long term schedule for reference.

IDEM Response: Please see the attached Addendum to IDEM's 2006 Integrated Report, which contains IDEM's Long Term TMDL Development Schedule.

EPA Questions Regarding IDEM's Response to Comments Received on the Draft 303(d) List from U.S. Steel:

On May 13, 2008, IDEM provided EPA with additional clarification to our original response to the following comment from US Steel.

Comment: In accordance with 327 IAC 2-1.5-16 site specific criteria for cyanide are applied from USS outfall 005 to one mile downstream. IDEM should use these criteria in assessing use support for that part of the segment INC0122_00. (USSC)

IDEM Response: The comment speaks to how IDEM defines its assessment units (AUs) and how water quality criteria are applied to those AUs. Regarding the delineation of AUs, IDEM's reach index, which determines the spatial extent of each assessment unit, considers the presence of potential point and nonpoint sources along with other factors that may impact water quality along a specific stream reach in order to define a representative assessment unit. When IDEM created its Reach Index in 2002, INC0122_00 was determined to be an appropriate unit of assessments given all the factors considered.

This AU is somewhat unique in that there is a small part of it for which site specific criteria has been developed. IDEM does not split AUs based solely on the existence of site-specific criteria. Several factors must be taken into consideration prior to splitting a segment. IDEM may in the future consider resegmentation in cases where site specific criteria exist. However, given the complexities inherent in this system and the historical and present issues impacting water quality in the Grand Calumet River, resegmentation of INC0122_00 cannot be considered without additional study and data analysis.

Site LMG020-0001 is located on INC0122_00 approximately 0.25 mile upstream of outfall 005, which is the starting point for application of the site-specific criteria for Cyanide (Cn). Given its proximity to the point at which site specific criteria becomes applicable, IDEM considers results from this site to be representative of conditions downstream on INC0122_00. IDEM does not have sufficient free cyanide data to determine the extent of impairment on this AU, nor does the Agency have free cyanide data for that portion of INC0122_00 to which the site-specific criteria applies. In accordance with USEPA requirements, IDEM may not delist a waterbody without proof that the WQS are being met. IDEM does not have such proof for INC0122_00. Even if IDEM were to split this AU for the purposes of specifically applying the site-specific criteria, the data available would still be insufficient to show that WQS are being met.