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May 28, 2014

Tinka Hyde, Water Division Director (Hyde.Tinka@EPA.gov)
United States Environmental Protection Agency, Region 5
77 W. Jackson Blvd.
Chicago, Illinois 60604-3507

Paul Proto, Environmental Scientist (Proto.Paul@EPA.gov)
United States Environmental Protection Agency, Region 5
77 W Jackson Blvd
Chicago, IL 60604

Dear Ms. Hyde, Mr. Proto:

WaterLegacy is a Minnesota non-profit organization formed to protect Minnesota's water resources and the communities that rely on them. We commented on the Minnesota Pollution Control Agency (MPCA) 2014 Impaired Waters List on February 10, 2014, and our comment letter and Exhibits A and C are attached. We are writing to ask that the U.S. Environmental Protection Agency (EPA) deny approval of the MPCA's 2014 Impaired Waters List pending MPCA's consideration of additional data regarding mercury impairments. We also request that the EPA recommend a timeline for the MPCA to provide a listing of wild rice impaired waters.

WaterLegacy asks that the EPA deny approval of the 2014 Impaired Waters List pending more thorough consideration of information regarding mercury in the water column and mercury in fish in the Partridge River, Embarrass River and Colby Lake. We believe that the rationale provided by the MPCA in rejecting the listing of these waters as mercury impaired waters is insufficient and does not consider all readily available water-quality related data.

We also believe that the MPCA has more than enough information to list at least all of the waters identified in the MPCA August 2013 spreadsheet (*See* Exhibit C, MPCA August 2013 Wild Rice Impairments spreadsheet) as waters used for the production of natural wild rice impaired due to sulfate water quality standard exceedance. We ask that the EPA advise the MPCA to propose listing wild rice impaired waters by August 2014 so that the public can comment and EPA can review Minnesota's complete 2014 Impaired Waters List by the close of the year.

Mercury Impaired Waters

WaterLegacy appreciates the MPCA's addition of Wynne Lake and Sabin Lake to its draft 2014 Impaired Waters List due to mercury impairments. However, WaterLegacy believes that the MPCA's rationale for rejecting proposed listing of the Embarrass River, the Partridge River and Colby Lake as mercury impaired waters is inconsistent with applicable regulations. The MPCA was required under law to assemble and analyze all existing and readily available water quality-related data.

WaterLegacy is puzzled by the MPCA's statement in its responses to our impaired waters comments that the Barr Engineering report *2010c* did not provide assessment of mercury in the Embarrass River. Barr *2010c* included 2009 sampling data showing average total mercury concentrations of 3.7 ng/L and 3.5 ng/L at sites PM12 and PM13 in the Embarrass River. Barr *2010c*, Table 1, p. 15. This data seems more than sufficient to demonstrate that the Embarrass River fails to meet the applicable Great Lakes mercury standard of 1.3 ng/L.

WaterLegacy is also troubled by the implication in the MPCA's response to comments that, if the public has not provided sufficient mercury sampling data for Colby Lake, the Partridge River and the Embarrass River, the Agency will not consider readily available data from other sources to decide whether to list these waters as impaired. The Clean Water Act and its implementing regulations do not entitle state agencies to assume blinders to avoid listing impaired waters.

Federal regulations require that states identify water-quality limited segments requiring waste load allocations, load allocations and total maximum daily loads. 40 C.F.R. §130.7. To identify and set priorities for water-quality limited segments, states must "assemble and evaluate all existing and readily available water quality-related data and information to develop the list." 40 C.F.R. §130.7 (b)(5). At a minimum "all existing and readily available water quality-related data and information" includes waters where dilution calculations or predictive models indicate nonattainment of applicable water quality standards and waters for which water quality problems have been reported by local, state, or federal agencies; or members of the public; or academic institutions. Organizations and groups should be actively solicited for research they may be conducting or reporting. 40 C.F.R. §130.7(b)(5).

Once members of the public had identified the Embarrass River, the Partridge River, Wynne Lake, Sabin Lake and Colby Lake as mercury impaired waters, the MPCA had an obligation to review all existing and readily available data, including data from discharge monitoring reports, data from the Minnesota Department of Natural Resources Mine Water Research Advisory Panel (MWRAP) research in the St. Louis River watershed, and any data collected by the Fond du Lac Band of the Lake Superior Chippewa or other Bands, including fish tissue as well as water column concentrations. We believe that additional data about mercury impairments in these waters should have been solicited by MPCA from MDNR, from tribal researchers, and from commenters as well as sought from its own files.

WaterLegacy has reviewed only a small portion of the MWRAP data sponsored by the Minnesota Department of Natural Resources, which includes the attached spreadsheet from J. Jeremiason's data. This spreadsheet, highlighted to call attention to data for the Embarrass River and Partridge River, contains total mercury data for the Embarrass River and Second Creek/Partridge River. The MWRAP data confirms mercury concentrations far above the 1.3 ng/L standard. We calculated the mean total mercury concentration from Jeremiason's 19 samples for the Embarrass River as 3.2 ng/L and the mean total mercury concentration from his 18 samples for Second Creek/Partridge River as 8.0 ng/L. (*See* Exhibit D, 2013 (MWRAP) Jeremiason Master Sample List).

WaterLegacy requests that the EPA deny approval of the 2014 Section 303(d) Impaired Waters List until the MPCA reviews all readily available data on the mercury impairments identified by the public. We believe that this review will further support the MPCA's proposal to list Wynne

Lake and Sabin Lake and will also result in the 2014 listing of the Embarrass River, Partridge River and Colby Lake as mercury impaired waters.

Sulfate Impaired Wild Rice Waters

WaterLegacy has requested for more than two years that wild rice waters impaired due to exceedance of the 10 mg/L sulfate standard be listed without delay on Minnesota's Section 303(d) Impaired Waters List. Documents received by WaterLegacy through the Minnesota Data Practices Act suggest that this year's delay in listing wild rice impaired waters until criteria for "waters used for the production of wild rice" are resolved was a response to industry pressure.

As reflected in our comments submitted on February 10, 2014, WaterLegacy agrees with the statement made in the MPCA's letter to U.S. Steel Corporation on November 8, 2103 that the MPCA is authorized to determine whether a water body is an impaired water used for the production of wild rice on the basis of information developed about the particular water. (*See* Exhibit A, MPCA Letter to USS, November 8, 2013). The 2011 legislation pertaining to rulemaking review of the wild rice sulfate standard does not affect the MPCA's obligation under the Clean Water Act to designate and protect impaired waters.

There is also no requirement in law that regulated parties must agree to the methodology used to list impaired waters or that the desire to amend definitions through rulemaking supersedes a state's obligation to designate impaired waters. WaterLegacy is concerned that the MPCA's 2014 listing of wild rice impaired waters is being held hostage until a rulemaking definition of "waters used for the production of wild rice" has been negotiated.

WaterLegacy believes that the assessment criteria developed by the MPCA for its preliminary listing of wild rice impaired waters are under-inclusive. But, Minnesota must move forward and, for the first time in its history, demonstrate a willingness to consider sulfate-polluted waters as wild rice impaired waters. We urge the EPA to require that the MPCA proceed without further delay to list as wild rice impaired waters at least the "low-hanging fruit" identified in August 2013. These wild rice impaired waters include:

Embarrass River (Embarrass Lake to St. Louis River)
Partridge River (Headwaters to S. Louis River)
Sandy River (Headwaters - Sandy Lake to Pike River)
St. Louis River (Oliver Bridge to Pokegama River)
St. Louis River (Mission Creek to Oliver Bridge)
Bostick Creek (Headwaters to Lake of the Woods)
County Ditch 12 (Headwaters to T113 R36W S8 north line)
Rice Creek (Rice Lake to Elk River)
Long Prairie River (Fish Trap Creek to Crow Wing River)
Rice Creek (Headwaters to Maple River)
Chippewa River (Watson Sag to Minnesota River)
Chippewa River (Unnamed Creek to E. Br. Chippewa River)
Chippewa River (E. Br. Chippewa River to Shakopee Creek)
Chippewa River (Cottonwood Creek to Dry Weather Creek)
Chippewa River (Stowe Lake to Little Chippewa river)
Cannon River (Pine Creek to Belle Creek)

Cannon River (Headwaters to Cannon Lake)
Cannon River (Byllesby Dam to Little Cannon River)
Cannon River (Belle Creek to split near mouth)
Cedar Island Lake (North Portion)
Cedar Island Lake (South Portion)
Fourth Lake
Esquagama Lake
East Vermillion Lake
Trout Lake
Elizabeth Lake (Main Basin)
Swan Lake (West Bay)
Swan Lake (Main Basin)
Preston Lake
Embarrass Lake
Lady Slipper Lake
Monongalia Lake (Main Basin)
Monongalia Lake (Middle Fork Crow)
Crow River Mill Pond (East)
Hay Lake
Big Stone Lake
Lac Qui Parle (NW Bay)
Lac Qui Parle (SE Bay)
Mina Lake
Pearl Lake
Sandy Lake
Little Sandy Lake
Marsh Lake
Lillian Lake
Lobster Lake
Sturgeon Lake
Long Lake

WaterLegacy has suggested in our February 2014 comments that the MPCA also include in the 2014 Impaired Waters List several waters identified in the PolyMet SDEIS as wild rice waters with excessive sulfates. Based on data in Table 4.2.2-3 on page 4-37 of the SDEIS, these include: Second Creek, Sabin Lake, and Wynne Lake.

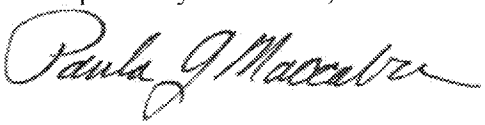
WaterLegacy believes this above list would reflect a very limited portion of Minnesota's wild rice impaired waters. However, the listing process is intended to be iterative, and we would support continued rigorous analysis to identify impairments, control sulfate releases and restore conditions that comply with the numeric and narrative water quality standards that were enacted in Minnesota Rules Chapter 7050.0224, subparts 1 and 2 to protect natural stands of wild rice.

Conclusion

For the reasons explained above, WaterLegacy requests that the EPA deny approval of Minnesota's partial 2014 Impaired Waters List until the MPCA has considered the full range of readily available data regarding mercury impairments in the Embarrass River, Partridge River

and Colby Lake. We also request that EPA advise the MPCA to proceed without further delay to identify wild rice waters impaired due to sulfate exceedances. An August 2014 deadline for the MPCA's revised proposal on mercury impairments and the MPCA's proposal of wild rice impaired waters is suggested to ensure that Minnesota can propose, the public can comment, and the EPA can review the state's complete impaired waters list before the end of 2014.

Respectfully submitted,



Paula Goodman Maccabee
Advocacy Director/Counsel for WaterLegacy

Enclosures: February 2014 WaterLegacy Comment, Exhibit A, Exhibit C
Exhibit D 2013 MWRAP Data Spreadsheet

Minnesota Pollution Control Agency

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November 8, 2013

Mr. Larry Sutherland
General Manager – Minnesota Ore Operations
United States Steel Corporation
P.O. Box 417
Mountain Iron, MN 55768

RE: United States Steel Corporation Correspondence Related to the Designation of a "Water Used for Production of Wild Rice"

Dear Mr. Sutherland:

The Minnesota Pollution Control Agency (MPCA) has received two letters from United States Steel Corporation (USS) related to the MPCA's process for designation of a "water used for production of wild rice" (WUFPOWR). The first was an August 12, 2013, letter from David Smiga responding to a MPCA document called "Draft Staff Recommendation for 'waters used for production of wild rice' downstream of the US Steel Minntac tailings basin." The second was a September 27, 2013, letter from you responding to MPCA comments on a June 27, 2013, Sulfate Reduction Plan revision required by the reissued water permits for the Keetac operation. In both letters, USS cites Minnesota Session Laws 2011, First Special Session, Chapter 2, Article 4 (2011 Law) asserting it is premature for the MPCA to determine that waters, other than those specifically listed in Minnesota rules, qualify as "waters used for the production of wild rice."

Though those two letters may raise other issues, this letter will respond to that specific assertion.

The MPCA has carefully considered USS' assertion. The MPCA believes that it is authorized to determine whether a particular water is a WUFPOWR on the basis of information developed about the particular water. The MPCA will continue to apply the current draft staff recommendations related to WUFPOWR subject to possible future modification after the criteria development process is completed.

However, because the MPCA continues to receive questions from all stakeholders about how such a determination is made, and specifically a number of requests to review the criteria the MPCA is using for such determinations, the MPCA has concluded that it is appropriate to provide opportunity for input on the criteria following the process laid out in Section 32 (b) of the 2011 Law. The MPCA plans to begin to develop criteria by meeting with the Minnesota Department of Natural Resources and Indian Tribes in late 2013 and anticipates taking public comment from other interested parties through public notice and comment sometime in early 2014.

The draft MPCA staff recommendations mentioned by USS include the following language: "This draft MPCA staff recommendation for ... is based on information currently available. MPCA staff will consider additional information that may become available in the future, whether from project proposers or from other interested/affected parties, and reserves the right to modify the draft staff recommendation accordingly." Once the MPCA has completed the criteria development process, the MPCA will consider those criteria as additional information and will reconsider the current draft MPCA staff recommendations for the waters mentioned in the two USS letters. MPCA staff will share the resulting draft staff recommendation (related to whether those waters are WUFPOWR and subject to the existing standard) with USS and the Tribes as is the current practice. The resulting draft staff recommendation will include any revisions as appropriate based on the additional information.

During the public comment period for any related permit or following issuance of such permit, USS may challenge the application of the criteria in the permitting process. As it did in the litigation initiated by the Minnesota Chamber of Commerce, the MPCA continues to reject any suggestion that WUFPOWR are limited to waters used for the irrigation of paddy rice, and not waters used for support of wildlife and other purposes. See Minn. R. 7050.0224, subp. 4.

Regarding the criteria development processes, the MPCA notes that the 2011 legislation has two distinct parts, rulemaking and criteria development. The 2011 legislation provides:

> *Sec. 32. WILD RICE RULEMAKING AND RESEARCH.*
>
> *(a) Upon completion of the research referenced in paragraph (d), the commissioner of the Pollution Control Agency shall initiate a process to amend Minnesota Rules, chapter 7050. The amended rule shall:*
>
> *(1) address water quality standards for waters containing natural beds of wild rice, as well as for irrigation waters used for the production of wild rice;*
>
> *(2) designate each body of water, or specific portion thereof, to which wild rice water quality standards apply; and*
>
> *(3) designate the specific times of year during which the standard applies.*

Nothing in this paragraph shall prevent the Pollution Control Agency from applying the narrative standard for all class 2 waters established in Minn. R. ch. 7050.0150, subp. 3.

> (b) "Waters containing natural beds of wild rice" means waters where wild rice occurs naturally. *Before designating waters containing natural beds of wild rice as waters subject to a standard, the commissioner of the Pollution Control Agency shall establish criteria for the waters after consultation with the Department of Natural Resources, Minnesota Indian tribes, and other interested parties and after public notice and comment. The criteria shall include, but not be limited to, history of wild rice harvests, minimum acreage, and wild rice density.*

2011 First Special Session, ch. 2, Art. 4 (emphasis added). The legislature has required that Minn. R. ch. 7050 be amended to designate each body of water, or specific portion thereof, to which wild rice water quality standards apply." Rulemaking has a long established formal process that the MPCA follows and will follow in designating waters. Referring to the italicized language, the legislature established a separate criteria development process for the MPCA to follow and specified that the process is to include a consultation component and a public notice and comment component separate from the public notice and comment process that will occur during the rulemaking called for by the legislation. The legislature has required the MPCA to complete the criteria development process prior to rulemaking for designating waters. While the criteria are to be used in the designation process, the legislation imposes no restrictions upon the MPCA's permitting authorities, its obligations to protect impaired waters or its use of the criteria on a case-by-case basis to identify impaired waters and when effluent limitations are necessary in permits.

Based on the foregoing, the MPCA has concluded that it is appropriate to move forward with the process to establish criteria for designating "waters containing natural beds of wild rice," prior to the rulemaking.

The MPCA will use the criteria that emerge from this process for three purposes: to inform the process of "designating" waters subject to the standard in the wild rice standards rulemaking, to apply on a case-by-case basis to identify when effluent limitations are necessary in permits, and to aid the MPCA when listing impaired waters. Attached is a proposed timeline for activities related for the wild rice sulfate standard.

Please feel free to contact me with questions at 651-757-2366.

Sincerely,

for Ann M. Foss
Director
Metallic Mining Sector
Industrial Division

AMF/SB:rm

Attachment

Last Revised: 11/8/13

Wild Rice Sulfate Standard -- Proposed Timeline of Related Activities

(Note: Green shading identifies public notice and dialogue opportunities)

		November-13	December-13	January-14	February-14	March-14	April-14	May-14 =>
Wild Rice Sulfate Standards Study[1]			Receive preliminary study results by December 31, 2013.	MPCA evaluate study data and develop wild rice sulfate standard rulemaking recommendations.		Share and discuss recommendations; begin to develop technical support details.	Begin rulemaking process to designate waters subject to standard and address any recommended changes to the standard.	
"Water Used for Production of Wild Rice" (WUFPOWR) Criteria Development[2]		MPCA meet with tribes, DNR and wild rice advisory committee to discuss WUFPOWR criteria development.		Public notice draft WUFPOWR criteria.	Review comments and revise WUFPOWR criteria as appropriate.	Use WUFPOWR criteria to inform process of "designating" waters subject to the sulfate wild rice standard; apply criteria for rulemaking, assessment, impaired waters list development and permitting.		
303 (d) Impaired Waters List[3]	**Wild rice sulfate assess-ments**	Wait to identify and assess WUFPOWR for the wild rice sulfate standard until WUFPOWR criteria are available.				Identify and assess WUFPOWR for the wild rice sulfate standard, consistent with WUFPOWR criteria. Public notice draft sulfate-impaired WUFPOWR. Submit WUFPOWR sulfate assessments to EPA when complete.[4]		
	All other assess-ments	Draft 2014 impaired waters list (minus WUFPOWR assessments) on MPCA website.	Hold public meetings on draft 2014 impaired waters list.	Public notice draft 2014 impaired waters list.	Review and respond to comments and revise draft 2014 impaired waters list as appropriate.		Draft 2014 impaired waters list due to EPA April 1, 2014.[4]	
NPDES Permit Development[5]		Continue to develop permits using draft staff recommendations related to identifying water used for production of wild rice.[6]				Re-evaluate draft staff recommendations using WUFPOWR criteria.		Any permit will be put on public notice prior to issuance.[6]

1. MN Session Laws 2011, First Special Session, Chapter 2, Article 4, Section 32 (d).
2. MN Session Laws 2011, First Special Session, Chapter 2, Article 4, Section 32 (b).
3. Federal Clean Water Act, 1972, Section 303 (d); MN Statutes 114D.25, subd. 1.
4. Depending on timing, the wild rice sulfate assessments may be submitted to EPA with the other assessments, or more likely as a separate package.
5. Federal Clean Water Act, 1972, Section 402; MN Statutes 115.03 , subd. 5
6. Permits will be put on public notice prior to issuance; a permit could go on notice at any point in the timeline.

AUID	NAME	DESCRIPTION	MEDIAN SULFATE CONC	PRELIM WATER QUALITY ASSESS	WATER-QUALITY ASSESSMENT COMMENTS	WILD RICE PRODUCTION WATER DECISION	WILD RICE PRODUCTION WATER COMMENTS	WILD RICE DATA SOURCE
04010201-577	Embarrass River	Embarrass Lk to St Louis R	27	Impaired	Recommend split below Esquagama Lake. Stations on lower and upper portions of AUID separated by multiple lakes. Median calculated based on station S005-751.	IF	Determination of a split will be made dependent upon finding wild rice between lakes along upstream portion of reach. No indication of wild rice along suggested new downstream AUID (outlet of Esquagama to St. Louis River) that would result from splitting. 1854 data indicate rice presence along northern portion of reach. Need to contact Darren Vogt for additional WR information on northern portion of reach. From mining information, northern portion includes sparse stands indicated with low density locations. Based solely on this, determined not to be wild rice production water.	Mining company surveys, 1854 Treaty Authority
04010201-552	Partridge River	Headwaters to St Louis R	48	Impaired	High variability in sample measurements within close proximity, geographic and temporal. Flows through Colby Lake (69-0249-00), which has wild rice and 2 high sulfate measurements.			Mining company surveys, 1854 Treaty Authority, UMN study
09030002-501	Sandy River	Headwaters (Sandy Lk 69-0730-00) to Pike R	85	Impaired	One discrepant data point.			Mining company surveys, 1854 Treaty Authority, UMN study
04010201-533	St Louis River	Oliver Bridge to Pokegama River	39	Impaired	Wild rice data (actual point locations) are constrained to river AUID, but are associated in database with St Louis Estuary (69-1292-00), which is broader than river AUID. (Measurements collected further downstream at Blatnik Bridge (downstream from WLSSD discharge) have lower concentrations.)			Data linked to Estuary polygon: Perleberg list, MCBS, DNR call for data submittal, Ann Geissen shapefile, 1854 Treaty Authority, mining company surveys
04010201-532	St Louis River	Mission Creek to Oliver Bridge	15	Impaired	Only 2 data points on AUID, but concentrations immediately upstream (S000-021) and downstream (S007-512, S007-515) (12 out of 15 measurements above 10) indicate impairment.			Data linked to Estuary polygon: Perleberg list, MCBS, DNR call for data submittal, Ann Geissen shapefile, 1854 Treaty Authority, mining company surveys. DNR 2008 study point alongside AUID
09030009-537	Bostick Creek	Headwaters to Lake of the Woods	33	Impaired	Data is from 4 months of 1 year, but consistently shows high sulfate concentrations.			DNR 2008 study point shapefile
07020004-551	County Ditch 12	Headwaters to T113 R36W S8, north line	113	Impaired	DNR 2008 study point indicates rice somewhere on County Ditch 12 (Rice Creek), which is more extensive than the AUID with sulfate data. AUID is impaired if wild rice is present in close proximity to sampling station.			DNR 2008 study point shapefile
07010203-512	Rice Creek	Rice Lk to Elk R	18	Impaired	DNR 2008 study point indicates rice somewhere on Rice Creek, which is more extensive than the AUID with sulfate data. AUID is impaired if wild rice is present in close proximity to sampling station.			DNR 2008 study point shapefile
07010108-501	Long Prairie River	Fish Trap Creek to Crow Wing R	13	Impaired	DNR 2008 study point indicates rice somewhere on Long Prairie River, which is more extensive than the AUID with sulfate data. AUID is impaired if wild rice is present in close proximity to sampling station.			2006 Harvester's report, DNR 2008 study point shapefile
07020011-531	Rice Creek	Headwaters to Maple R	28	Impaired	Consistently high sulfate concentrations at all 4 stations along entire AUID.			DNR 2008 study point shapefile
07020005-501	Chippewa River	Watson Sag to Minnesota R	139	Impaired	DNR 2008 study point indicates rice somewhere on Chippewa River, which is more extensive than the AUIDs with sulfate data. Wherever sampled, the Chippewa River has high sulfate concentrations. Listing individual AUIDs is dependent upon location of wild rice.	No	DNR 2008 report indicates wild rice somewhere along the Chippewa River. Only documentation of wild rice was on a tributary (Danvers Ditch). There is insufficient information about rice in the ditch.	DNR 2008 study point shapefile
07020005-505	Chippewa River	Unnamed cr to E Br Chippewa R	88	Impaired	See above comment regarding Chippewa River.	No	DNR 2008 report indicates wild rice somewhere along the Chippewa River. Only documentation of wild rice was on a tributary (Danvers Ditch). There is insufficient information about rice in the ditch.	DNR 2008 study point shapefile
07020005-506	Chippewa River	E Br Chippewa R to Shakopee Cr	70	Impaired	See above comment regarding Chippewa River.	No	DNR 2008 report indicates wild rice somewhere along the Chippewa River. Only documentation of wild rice was on a tributary (Danvers Ditch). There is insufficient information about rice in the ditch.	DNR 2008 study point shapefile
07020005-508	Chippewa River	Cottonwood Cr to Dry Weather Cr	90	Impaired	See above comment regarding Chippewa River.	No	DNR 2008 report indicates wild rice somewhere along the Chippewa River. Only documentation of wild rice was on a tributary (Danvers Ditch). There is insufficient information about rice in the ditch.	DNR 2008 study point shapefile
07020005-503	Chippewa River	Stowe Lk to Little Chippewa R	39	Impaired	See above comment regarding Chippewa River.	No	DNR 2008 report indicates wild rice somewhere along the Chippewa River. Only documentation of wild rice was on a tributary (Danvers Ditch). There is insufficient information about rice in the ditch.	DNR 2008 study point shapefile
07040002-502	Cannon River	Pine Cr to Belle Cr	33	Impaired	DNR 2008 study point indicates rice somewhere on Cannon River, which is more extensive than the AUIDs with sulfate data. Wherever sampled, the Cannon River has high sulfate concentrations. Listing individual AUIDs is dependent upon location of wild rice.			DNR 2008 study point shapefile
07040002-542	Cannon River	Headwaters to Cannon Lk	17	Impaired	See above comment regarding Cannon River.			DNR 2008 study point shapefile
07040002-539	Cannon River	Byllesby Dam to Little Cannon R	27	Impaired	See above comment regarding Cannon River.			DNR 2008 study point shapefile
07040002-501	Cannon River	Belle Cr to split near mouth	31	Impaired	See above comment regarding Cannon River.			DNR 2008 study point shapefile

Footnotes:

1. This spreadsheet includes working notes from an August 13, 2013 meeting of MPCA staff
2. Nothing in this spreadsheet represents a final agency decision
3. The spreadsheet was updated with clarifying footnotes following a November 16, 2013 Data Practices Act Request
4. "Impaired" is staff indication that the median sulfate concentration exceeded 10 mg/L
5. Notations in the column "WILD RICE PRODUCTION WATER DECISION" do not represent an agency decision on applicability of the Class 4A 10 mg/L standard at these water bodies rather they indicate that there are data documenting some history of wild rice

NAME	MEDIAN SULFATE CONC	PRELIM WATER QUALITY ASSESS	WATER QUALITY ASSESSMENT COMMENTS	WILD RICE PRODUCTION WATER DECISION	WILD RICE PRODUCTOIN WATER COMMENTS	WILD RICE ACRES	WILD RICE DATA SOURCE
Cedar Island (N portion)	21	Impaired	Multiple sites with data collected same date, but concentrations consistent across sites, median still significantly above 10. Evaluate together with S. Portion, Fourth, and Esquagama, all connected via Embarrass R.	Yes	Mining company survey shows low to moderate density of rice throughout perimeter of lake. DNR lake survey jul 12, 1990 noted abundant wild rice, especially along west shore. Sulfate sampling locations are near wild rice observation sites.		Mining Companies, 1854 Treaty Authority
Cedar Island (S portion)	20	Impaired	Multiple sites with data collected same date, but concentrations consistent across sites, median still significantly above 10.	Yes	Mining company survey shows moderate density of rice throughout perimeter of lake. DNR lake survey jul 12, 1990 noted abundant wild rice, especially along west shore. Sulfate sampling locations are near wild rice observation sites.		Mining Companies, 1854 Treaty Authority
Fourth	20	Impaired	Only 1 measurement on lake itself, but concentrations on (connected) Esquagama (69-0565-00-203) and Cedar Island S. Portion (69-0568-02-204,69-0568-02-207) are also high.	IF	Need to contact Darren Vogt for additional WR information. From mining information, sparse stands indicated with single low density location. Based on this, determined not to be wild rice production water.		Mining Companies, 1854 Treaty Authority, Ann Geissen shapefile, 2008 Study shapefile
Esquagama	26	Impaired	Only 3 measurements on lake itself, but concentrations on (connected) Fourth Lake (69-0573-00-201) and downstream (S005-751) are also high.	IF	Need to contact Darren Vogt for additional WR information. From mining information, a single stand with low density. Based on this, determined not to be wild rice production water.		Mining Companies, 1854 Treaty Authority
East Vermilion	14	Impaired	Multiple sites with data collected same date, but concentrations consistent across sites, median still significantly above 10.	Yes	Significant acreage of rice in Big Bay. Assumed to be at least 70 acres in Big bay based on estimated size of Rice Bay at 180 acres, and total wild rice area of 250 acres. Rice Bay is also indicated for wild rice, but no sulfate data have been collected there.	250	1854 Treaty Authority, Ann Geissen shapefile, 2008 Study shapefile
Trout	42	Impaired		No	insufficient information to determine that this is a production water.		DNR call for data submittal, U of MN study sites
Elizabeth (main basin)	30	Impaired		No	Insufficient information to determine that this is a production water. DNR lake survey reports dates 6/2006, 5/1997 no wild rice noted.		DNR call for data submittal
Swan (W bay)	tbd	TBD	Impaired, subject to verification of location of station 31-0067-01-204. If judged strictly on station 01-205, sulfate not significantly above 10.	Yes	Staff recommendation for the ESSAR water permit is that this is a production water. Check with Stephanie for recommendation date.	50 (00)	2006 Harvest Survey (00 polygon), Ann Geissen shapefile, Perleberg list, 2008 Study shapefile. Rice data tied to underlying lake (-00)
Swan (main basin)	tbd	Impaired	Median dependent upon station 31-0067-01-204 being included in main basin. Regardless, median is significantly above 10.	Yes	* The outlet bay upstream of the dam is a wild rice production water, based on mining company survey from 2011 has densities of 4 and 5.	50 (00)	2006 Harvest Survey (00 polygon), Ann Geissen shapefile, Perleberg list, 2008 Study shapefile. All tied to underlying lake (-00). UMN study data tied to Main Basin polygon (-02).
Preston	45	Impaired		No	insufficient information to determine that this is a production water. Lake Survey reports from 3/29/1995, 2/21/2006 noted no wild rice.		DNR call for data submittal
Embarrass	21	Impaired	Multiple sites with data collected same date, but concentrations consistent across sites, median still significantly above 10.	Yes	Upper portion of Embarrass shows numerous low to moderate density observations around entire perimeter in mining surveys from 2009 and 2010. However, Lower Embarrass had few observations of low density. *Only Upper Embarrass is considered a wild rice production water.		1854 Treaty Authority, mining company data, Perleberg list, UMN Study
Lady Slipper	314	Impaired	Multiple sites; station 203 has single observation, still above 10, but well below other observations.	No	1997 fisheries transect from 1997 indicated small area of rice. 2011 and 2012 UMN study found no wild rice.		Perleberg list, UMN study
Monongalia (main basin)	31	Impaired		IF	Photo from 2012 exists of high density wild rice. Mark Gernes has harvested rice on the lake for several recent years. U of MN study showed 3 pct coverage at study site. Contact Ed Swain and Mark Gernes for details on location of harvestable rice. Contact Donna Perleberg for more information on inclusion in her list.		UMN study (tied to main basin -01). MCBS, Perleberg list, Ann Geissen shapefile, 2008 study shapefile on underlying waterbody (-00)
Monongalia - Middle Fk Crow	29	Impaired	One questionable sample with very low concentration, turned out to be pore water, sample was excluded and median recalculated.	Yes	Photo from 2012 exists of high density wild rice. Mark Gernes has harvested rice on the lake for several recent years. U of MN study showed 38.75 pct coverage at study site.		UMN study (tied to polygon -02). MCBS, Perleberg list, Ann Geissen shapefile, 2008 study shapefile on underlying waterbody (-00)
Crow River Mill Pond (East)	26	Impaired		IF	Contact Donna Perleberg for more information on Mill Pond observation from MCBS survey 8/6/2002. Contact Mark Gernes for local knowledge.		MCBS, Perleberg list, Ann Geissen shapefile, 2008 study shapefile, all on underlying waterbody (-00)

Footnotes:

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2. Nothing in this spreadsheet represents a final agency decision
3. The spreadsheet was updated with clarifying footnotes following a November 16, 2013 Data Practices Act Request
4. "Impaired" is staff indication that the median sulfate concentration exceeded 10 mg/L
5. Notations in the column "WILD RICE PRODUCTION WATER DECISION" do not represent an agency decision on applicability of the Class 4A 10 mg/L standard at these water bodies rather they indicate that there are data documenting some history of wild rice

NAME	MEDIAN SULFATE CONC	PRELIM WATER QUALITY ASSESS	WATER QUALITY ASSESSMENT COMMENTS	WILD RICE PRODUCTION WATER DECISION	WILD RICE PRODUCTOIN WATER COMMENTS	WILD RICE ACRES	WILD RICE DATA SOURCE
Hay	52	Impaired		Yes	Staff recommendation for Keetac permit in 2011 was that this is a wild rice production water. Check with Brandon Smith on the date of the Perry Pit dewatering permit.		Ann Geissen shapefile, UMN study, 2008 DNR study
Big Stone	404	Impaired		No	insufficient information to determine that this is a production water. DNR lake survey from 3/17/2004 noted no wild rice.		DNR call for data submittal
Lac Qui Parle (NW bay)	293	Impaired		No	3/23/2000 DNR lake survey - no wild rice noted.		DNR call for data submittal - on underlying waterbody (-00)
Lac Qui Parle (SE bay)	270	Impaired	Only 1 data point on this bay, but concentrations on upstream portion of lake (37-0046-02) and downstream river (07020004-688) are also high.	No	3/23/2000 DNR lake survey - no wild rice noted.		DNR call for data submittal - on underlying waterbody (-00)
Mina	25	Impaired		IF	DNR Lake Surveys from 8/4/1949, 1/2/1998 indicated wild rice presence. 1949 comment indicates sparse presence. 1998 survey was a fisheries transect. Contact Ann Geisen for further detail on why this waterbody was included in call for data submission.		DNR call for data submittal
Pearl	21	Impaired		IF	DNR lake survey indicates wild rice was rare August 24 - 28, 1987. Contact Ann Geisen for further detail on why this waterbody was included in call for data submission.		DNR call for data submittal
Sandy	135	Impaired		Yes	Locate draft staff recommendation for production water status. Wild rice acreage from 2008 report.	121	1854 Treaty Authority, UMN study, Ann Geissen List, 2008 study shapefile
Little Sandy	145	Impaired		Yes	Locate draft staff recommendation for production water status. Wild rice acreage from 2008 report.	89	1854 Treaty Authority, Ann Geissen List, 2008 study shapefile
Marsh	379	Impaired		No	DNR lake survey reports from 3/9/2004, 3/28/2001 noted no wild rice, 4/14/1954 waterfowl/muskrat habitat survey comment says "wild rice would not do well in this lake". 8/1962 map showed no wild rice. 7/1968 game and fish map showed no wild rice.		DNR call for data submittal
Lillian	151	Impaired		No	5/13/1997 lake survey report noted no wild rice.		DNR call for data submittal
Lobster	22	Impaired	Only 1 measurement on lake itself, but concentrations on lakes immediately adjacent (21-0108-00, 21-0180-00, 21-0150-00) are also high.	No	2/5/1997 lake survey report no rice noted. 1949 report did not note any rice and "wild rice would not do well in this lake". Follow up with 1997 fisheries report.		Perleberg list
Sturgeon	58	Impaired	All data collected on Mississippi (MissR 796.9, MissR 805.0), but direct hydrologic connection with Sturgeon.	No	insufficient information to determine that this is a production water.		Ann Geissen shapefile, DNR 2008 study
Long	33	Impaired	Only 1 measurement on lake, but concentrations (5 miles) downstream (S005-630) are also high.	No	insufficient information to determine that this is a production water. DNR Lake Survey report from 2/5/1997 did not note any wild rice.		DNR call for data submittal
Red Lake River Reservoir	tbd	Insufficient Information	Drinking water intake near dam may yield additional sulfate data. Downstream sulfate concentrations high (S002-324), but only 2 measurements recorded. Wild rice location unknown; will determine whether it is necessary to seek additional sulfate data, leading to possible judgment of impairment.	IF	Need to consult fisheries area surveys from 7/2/2009 and 8/1/1994 to determine wild rice location.		DNR call for data submittal, Perleberg list
Rice	tbd	Insufficient Information	Outflow stream has high sulfate. Main inflow is close to outlet, large distance from lake sampling locations. Wild rice location within lake unknown, but will determine whether outflow sulfate concentrations are sufficient for judgment of impairment.	No	Insufficient information to determine that this is a production water. UMN study did not observe any rice in 2012.		Ann Geissen shapefile, DNR 2008 study, UMN study

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Jeremiason ID	Field Id	Site	THg (1)	THg (2)	THg (3)
13001	351653	S2 Weir	15.45		
13002	351664	S2 Sub	17.70		
13003	351655	S2 N Lagg	10.53		
13004	351665	S2 Surf	11.69		
13005	351697	S2 Weir	16.82		
13006	351713	S2 Sub	13.36		
13007	351700	S2 N Lagg	-0.12	16.07	
13008	351712	S2 Surf	9.05		
13009	351730	S2 Weir	16.50		
13010	351732	S2 N Lagg	18.33		
13011	351734	S2 Sub	21.83		
13012	0	Filter Blank (MQ)	0.42		
13013	351741	S2 Weir	16.77		
13014	351745	S2 N Lagg	18.61		
13015	351754	S2 Sub	11.93		
13016	351761	S2 Weir	15.56		
13017	351764	S2 N Lagg	13.96		
13018	351780	S2 Weir	15.65		
13019	351782	S2 N Lagg	13.45		
13020	F-S003-973-01	SLR at Scanlon	5.63		
13021	F-S000-119-01	SLR at Forbes	5.79		
13022	F-S000-631-01	SLR at CSAH 110 near Skibo	5.96		
13023	F-S005-147-01	Cloquet River	5.72		
13024	F-S004-599-01	Floodwood River	4.43	4.50	
13025	F-S005-763-01	Whiteface River	6.14		
13026	F-S005-770-01	Swan River	4.76		
13027	F-S004-601-01	West Two Rivers	3.24		
13028	F-S005-751-01	Embarrass River	3.93		
13029	F-S005-752-01	River	6.54		
13030	F-S007-052-01	Stony Creek	6.19	7.21	
13031	F-S003-973-01 FR	SLR at Forbes	4.62		
13032	F-SB1-01	F-SB1-01	2.05		
13033	F-SB2-01	F-SB2-01	1.71		
13034	F-SB3-01	F-SB3-01	0.26		
13035	F-SB4-01	F-SB4-01	0.14		
13036	U-S003-973-01	SLR at Scanlon	4.11	4.48	
13037	U-S000-119-01	SLR at Forbes	7.32		

13038	U-S000-631-01		SLR at CSAH 110 near Skibo	8.54		
13039	U-S005-147-01		Cloquet River	4.03		
13040	U-S004-599-01		Floodwood River	4.99		
13041	U-S005-763-01		Whiteface River	7.55	7.45	
13042	U-S005-770-01		Swan River	11.41		
13043	U-S004-601-01		West Two Rivers	3.82		
13044	U-S005-751-01		Embarrass River	4.14		
13045	U-S005-752-01		River	8.07		
13046	U-S007-052-01		Stony Creek	8.42	8.32	
13047	U-S003-973-01 FR		SLR at Forbes	6.27		
13048	U-SB1-01		U-SB1-01	1.59		
13049	U-SB2-01		U-SB2-01	1.88		
13050	U-SB3-01		U-SB3-01	0.41		
13051	U-SB4-01		U-SB4-01	0.27	0.31	
13052	Trip Blank 1-1		Trip Blank 1-1	1.48		
13053	Trip Blank 1-2		Trip Blank 1-2	0.34		
13054		351793	S2 Weir	14.23		
13055		351796	S2 N Lagg	11.98		
13056	F-S000-119-02		SLR at Forbes	5.06		
13057	F-S000-631-02		SLR at CSAH 110 near Skibo	6.17		
13058	F-S003-973-02		SLR at Scanlon	4.71		
13059	F-S003-973-02 FR		SLR at Scanlon	4.70		
13060	F-S004-599-02		Floodwood River	4.27	4.18	
13061	F-S004-601-02		West Two Rivers	3.53		
13062	F-S005-147-02		Cloquet River	3.35		
13063	F-S005-751-02		Embarrass River	3.53		
13064	F-S005-752-02		Second Creek / Partridge River	5.56		
13065	F-S005-763-02		Whiteface River	5.37	5.46	
13066	F-S005-770-02		Swan River	4.17		
13067	F-S007-052-02		Stony Creek	6.32		
13068	SB1-02		F-SB1-02	0.45		
13069	SB2-02		F-SB2-02	0.28		
13070	SB3-02		F-SB3-02	0.63		
13071	SB4-02		F-SB4-02	0.30		
13072	U-S000-119-02		SLR at Forbes	5.58		
13073	U-S000-631-02		SLR at CSAH 110 near Skibo	7.46		
13074	U-S003-973-02		SLR at Scanlon	5.53		
13075	U-S003-973-02 FR		SLR at Scanlon	4.97		
13076	U-S004-599-02		Floodwood River	4.33	4.35	4.316143138
13077	U-S004-601-02		West Two Rivers	3.66	3.54	

13078	U-S005-147-02		Cloquet River	3.56	3.14	
13079	U-S005-751-02		Embarrass River	3.83	3.41	
13080	U-S005-752-02		Second Creek / Partridge River	6.07	5.74	
13081	U-S005-763-02		Whiteface River	5.93	5.96	6.030090153
13082	U-S005-770-02		Swan River	10.39		
13083	U-S007-052-02		Stony Creek	7.59		
13084	U-		U-SB1-02	0.50		
13085	U-		U-SB2-02	0.27		
13086	U-		U-SB3-02	0.46		
13087	U-		U-SB4-02	0.36		
13088	Trip Blank 2-1		Trip Blank 2-1	0.41		
13089	Trip Blank 2-2		Trip Blank 2-2	0.22		
13090		351806	S2 Weir	11.74		
13091		351808	S2 N Lagg	9.21		
13092	F-S000-119-03		SLR at Forbes	4.08	4.59	
13093	F-S000-631-03		SLR at CSAH 110 near Skibo	6.23		
13094	F-S003-973-03		SLR at Scanlon	4.57		
13095	F-S003-973-03 FR		SLR at Scanlon	4.28		
13096	F-S004-599-03		Floodwood River	3.61		
13097	F-S004-601-03		West Two Rivers	1.79	1.78	
13098	F-S005-147-03		Cloquet River	2.66		
13099	F-S005-751-03		Embarrass River	3.22		
13100	F-S005-752-03		Second Creek / Partridge River	5.15		
13101	F-S005-763-03		Whiteface River	4.78		
13102	F-S005-770-03		Swan River	3.43	3.58	
13103	F-S007-052-03		Stony Creek	6.16		
13104	F-SB1-03		0	0.50		
13105	F-SB2-03		0	0.50		
13106	F-SB3-03		0	0.44		
13107	F-SB4-03		0	0.83	0.92	
13108	U-S000-119-03		SLR at Forbes	5.13		
13109	U-S000-631-03		SLR at CSAH 110 near Skibo	7.45		
13110	U-S003-973-03		SLR at Scanlon	4.36		
13111	U-S003-973-03 FR		SLR at Scanlon	4.09		
13112	U-S004-599-03		Floodwood River	3.73	4.00	
13113	U-S004-601-03		West Two Rivers	2.19		
13114	U-S005-147-03		Cloquet River	3.08		
13115	U-S005-751-03		Embarrass River	3.79		

13116	U-S005-752-03		Second Creek / Partridge River	4.73	
13117	U-S005-763-03		Whiteface River	4.72	4.81
13118	U-S005-770-03		Swan River	5.40	
13119	U-S007-052-03		Stony Creek	4.19	
13120	U-SB1-03		0	0.29	
13121	U-SB2-03		0	0.33	
13122	U-SB3-03		0	0.35	0.36
13123	U-SB4-03		0	0.68	
13124	Trip Blank 3-1		0	0.41	
13125	Trip Blank 3-2		0	0.25	
13126		0	0		
13127		0	0	0.22	0.20
13128		0	S2 Weir	11.64	
13129		0	S2 N Lagg	10.89	
13130	F-S000-119-04		SLR at Forbes	5.54	
13131	F-S000-631-04		SLR at CSAH 110 near Skibo	7.19	
13132	F-S003-973-04		SLR at Scanlon	4.66	
13133	F-S003-973-04 FR		SLR at Scanlon	4.63	
13134	F-S004-599-04		Floodwood River	4.35	4.31
13135	F-S004-601-04		West Two Rivers	2.42	
13136	F-S005-147-04		Cloquet River	3.36	
13137	F-S005-751-04		Embarrass River	3.16	
13138	F-S005-752-04		Second Creek / Partridge River	5.24	
13139	F-S005-763-04		Whiteface River	5.26	5.59
13140	F-S005-770-04		Swan River	4.44	
13141	F-S007-052-04		Stony Creek	5.89	
13142	F-SB1-04		0	0.38	
13143	F-SB2-04		0	0.14	
13144	F-SB3-04		0	0.03	
13145	U-S000-119-04		SLR at Forbes	4.53	7.18
13146	U-S000-631-04		SLR at CSAH 110 near Skibo	6.34	
13147	U-S003-973-04		SLR at Scanlon	6.12	
13148	U-S003-973-04 FR		SLR at Scanlon	6.03	
13149	U-S004-599-04		Floodwood River	4.74	
13150	U-S004-601-04		West Two Rivers	3.15	
13151	U-S005-147-04		Cloquet River	3.20	
13152	U-S005-751-04		Embarrass River	3.55	
13153	U-S005-752-04		Second Creek / Partridge River	5.61	

13154	U-S005-763-04	Whiteface River		6.58	
13155	U-S005-770-04	Swan River		7.17	
13156	U-S007-052-04	Stony Creek		6.83	
13157	U-SB1-04	SB1-04		0.19	
13158	U-SB2-04	SB2-04		0.15	
13159	U-SB3-04	SB3-04		-0.02	
13160	Trip Blank 4-1	Trip Blank 4-1		0.30	
13161	Trip Blank 4-2	Trip Blank 4-2		0.02	
13162	Trip Blank 4-3	Trip Blank 4-3		-0.03	
13163	0	S2 Weir		11.23	
13164	0	S2 N Lagg			
13165	0	S2 N Lagg			
13166	F-S000-119-05	SLR at Forbes		7.02	
13167	F-S000-631-05	SLR at CSAH 110 near Skibo		7.94	
13168	F-S003-973-05	SLR at Scanlon		4.67	
13169	F-S003-973-05 FR	SLR at Scanlon		4.84	
13170	F-S004-599-05	Floodwood River		3.59	3.66
13171	F-S004-601-05	West Two Rivers		3.03	
13172	F-S005-147-05	Cloquet River		3.24	
13173	F-S005-751-05	Embarrass River		3.13	
13174	F-S005-752-05	Second Creek / Partridge River		20.94	5.88
13175	F-S005-763-05	Whiteface River		5.94	
13176	F-S005-770-05	Swan River		4.49	
13177	F-S007-052-05	Stony Creek		6.28	
13178	F-SB1-05		0	0.45	
13179	F-SB2-05		0	0.22	
13180	F-SB3-05		0	0.53	
13181	U-S000-119-05	SLR at Forbes		9.26	
13182	U-S000-631-05	SLR at CSAH 110 near Skibo		9.07	
13183	U-S003-973-05	SLR at Scanlon		6.26	
13184	U-S003-973-05 FR	SLR at Scanlon		6.88	
13185	U-S004-599-05	Floodwood River		4.17	
13186	U-S004-601-05	West Two Rivers		3.84	
13187	U-S005-147-05	Cloquet River		3.90	
13188	U-S005-751-05	Embarrass River		3.86	
13189	U-S005-752-05	Second Creek / Partridge River		12.76	
13190	U-S005-763-05	Whiteface River		7.50	
13191	U-S005-770-05	Swan River		8.87	
13192	U-S007-052-05	Stony Creek		6.96	6.94

13193	U-SB1-05	SB1-05	0.54		
13194	U-SB2-05	SB2-05	0.23		
13195	U-SB3-05	SB3-05	0.21		
13196	Trip Blank 5-1	Trip Blank 5-1	0.25		
13197	Trip Blank 5-2	Trip Blank 5-2	0.37		
13198	F-S000-119-06	SLR at Forbes	6.13		
13199	F-S000-631-06	SLR at CSAH 110 near Skibo	6.92		
13200	F-S003-973-06	SLR at Scanlon	4.79		
13201	F-S003-973-06 FR	SLR at Scanlon	4.79		
13202	F-S004-599-06	Floodwood River	2.75	2.70	
13203	F-S004-601-06	West Two Rivers	1.40		
13204	F-S005-147-06	Cloquet River	3.43		
13205	F-S005-751-06	Embarrass River	2.83		
13206	F-S005-752-06	Second Creek / Partridge River	8.28		
13207	F-S005-763-06	Whiteface River	5.04	10.39	6.26
13208	F-S005-770-06	Swan River	3.11		
13209	F-S007-052-06	Stony Creek	3.00		
13210	F-SB1-06	SB1-06	0.07		
13211	F-SB2-06	SB2-06	0.21		
13212	F-SB3-06	SB3-06	0.28		
13213	U-S000-119-06	SLR at Forbes	6.73		
13214	U-S000-631-06	SLR at CSAH 110 near Skibo	7.73		
13215	U-S003-973-06	SLR at Scanlon	5.03	5.13	
13216	U-S003-973-06 FR	SLR at Scanlon	5.00		
13217	U-S004-599-06	Floodwood River	3.03		
13218	U-S004-601-06	West Two Rivers	1.29		
13219	U-S005-147-06	Cloquet River	0.14	4.05	
13220	U-S005-751-06	Embarrass River	0.07	3.09	3.40
13221	U-S005-752-06	River	9.02		
13222	U-S005-763-06	Whiteface River	5.83		
13223	U-S005-770-06	Swan River	5.19		
13224	U-S007-052-06	Stony Creek	4.11		
13225	U-SB1-06	SB1-06	0.78		
13226	U-SB2-06	SB2-06	0.41		
13227	U-SB3-06	SB3-06	0.58		
13228	Trip Blank 6-1	Trip Blank 6-1	1.00		
13229	Trip Blank 6-2	Trip Blank 6-2	0.31		
13230	Trip Blank 6-3	Trip Blank 6-3	0.17		
13231	0	S2 Weir	15.28		
13232	0	S2 N Lagg	16.37		

13233	F-S000-119-06	SLR at Forbes	6.09	
13234	F-S000-631-06	SLR at CSAH 110 near Skibo	7.32	
13235	F-S003-973-06	SLR at Scanlon	4.75	
13236	F-S003-973-06 FR	SLR at Scanlon	4.61	
13237	F-S004-599-06	Floodwood River	3.52	3.57
13238	F-S004-601-06	West Two Rivers	2.85	
13239	F-S005-147-06	Cloquet River	3.63	
13240	F-S005-751-06	Embarrass River	3.15	
13241	F-S005-752-06	River	8.91	
13242	F-S005-763-06	Whiteface River	6.84	6.62
13243	F-S005-770-06	Swan River	4.95	
13244	F-S007-052-06	East Two Rivers	0.08	
13245	F-SB1-06	SB1-06	0.59	
13246	F-SB2-06	SB2-06	0.07	
13247	F-SB3-06	SB3-06	0.25	
13248	U-S000-119-06	SLR at Forbes	6.07	6.02
13249	U-S000-631-06	SLR at CSAH 110 near Skibo	9.59	
13250	U-S003-973-06	SLR at Scanlon	4.51	
13251	U-S003-973-06 FR	SLR at Scanlon	4.71	
13252	U-S004-599-06	Floodwood River	3.78	
13253	U-S004-601-06	West Two Rivers	3.16	3.54
13254	U-S005-147-06	Cloquet River	4.28	
13255	U-S005-751-06	Embarrass River	3.21	
13256	U-S005-752-06	River	9.66	
13257	U-S005-763-06	Whiteface River	7.89	
13258	U-S005-770-06	Swan River	8.73	8.83
13259	U-S007-052-06	East Two Rivers	3.92	
13260	U-SB1-06	SB1-06	0.55	
13261	U-SB2-06	SB2-06	0.50	
13262	U-SB3-06	SB3-06	0.25	
13263	Trip Blank 6-1	Trip Blank 6-1	0.64	
13264	Trip Blank 6-2	Trip Blank 6-2	0.29	
13265	Trip Blank 6-3	Trip Blank 6-3	0.40	
13266	0	S2 Weir	14.89	
13267	0	S2 N Lagg	16.07	
13268	F-S000-119-06	SLR at Forbes	5.75	
13269	F-S000-631-06	SLR at CSAH 110 near Skibo	6.89	
13270	F-S003-973-06	SLR at Scanlon	4.80	
13271	F-S003-973-06 FR	SLR at Scanlon	4.12	

13272	F-S004-599-06	Floodwood River	3.05	3.07	
13273	F-S004-601-06	West Two Rivers	1.65		
13274	F-S005-147-06	Cloquet River	3.59		
13275	F-S005-751-06	Embarrass River	2.40		
13276	F-S005-752-06	River	7.91		
13277	F-S005-763-06	Whiteface River	5.92	5.69	
13278	F-S005-770-06	Swan River	3.72		
13279	F-S007-052-06	East Two Rivers	1.63		
13280	F-SB1-08	SB1-06	0.30		
13281	F-SB2-08	SB2-06	0.19		
13282	U-S000-119-06	SLR at Forbes	5.93	5.63	
13283	U-S000-631-06	SLR at CSAH 110 near Skibo	6.92		
13284	U-S003-973-06	SLR at Scanlon	5.12		
13285	U-S003-973-06 FR	SLR at Scanlon	4.88		
13286	U-S004-599-06	Floodwood River	3.01		
13287	U-S004-601-06	West Two Rivers	1.59	1.61	
13288	U-S005-147-06	Cloquet River	3.90		3.90
13289	U-S005-751-06	Embarrass River	2.69		
13290	U-S005-752-06	River	8.26		
13291	U-S005-763-06	Whiteface River	6.43		
13292	U-S005-770-06	Swan River	5.38		
13293	U-S007-052-06	East Two Rivers	2.81	2.71	
13294	U-SB1-08	SB1-08	0.26		
13295	U-SB2-08	SB2-08	0.23		
13296	Trip Blank 8-1	Trip Blank 8-1	0.31		
13297	Trip Blank 8-2	Trip Blank 8-2	0.14		
13298	0	S2 Weir	10.49		
13299	0	S2 N Lagg	10.60		