



## Memorandum

**To:** Bassett Creek Watershed Management Commission (BCWMC)  
**From:** Barr Engineering Co. and Administrator Jester  
**Subject:** Listing of the Main Stem of Bassett Creek on Minnesota Pollution Control Agency (MPCA) Draft 2022 Impaired Waters List  
**Date:** December 6, 2021  
**Project:** 23270051.52

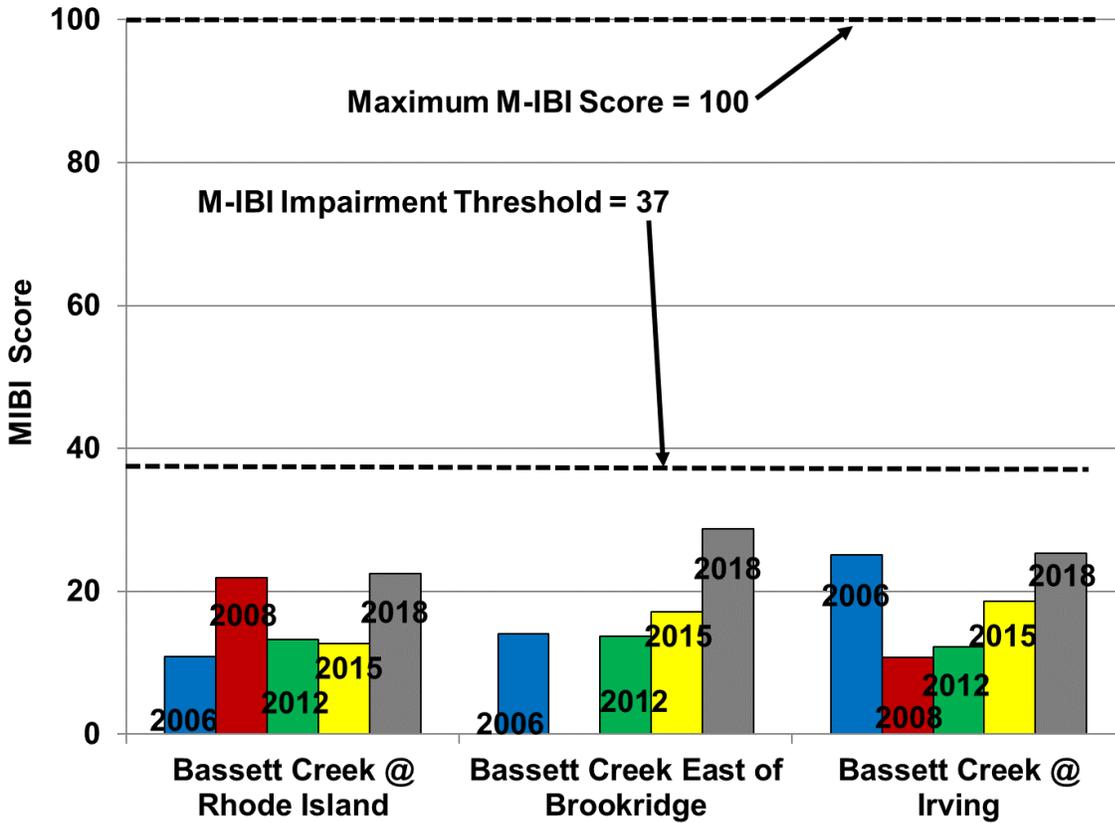
As required by the federal [Clean Water Act](#), Minnesota develops a list of impaired waters – those that fail to meet water quality standards – every two years. The draft 2022 list is due on April 1, 2022 to the U.S. Environmental Protection Agency, which will make the final decision on approving the list. The Minnesota Pollution Control Agency (MPCA) released the draft 2022 impaired waters list in early November and indicated a public comment period is open until January 7, 2022. Find the draft list and information here: <https://www.pca.state.mn.us/water/minnesotas-impaired-waters-list>

The MPCA added Bassett Creek (the entire Main Stem from Medicine Lake to the tunnel entrance) to the draft MPCA 2022 impaired waters list for aquatic life based on benthic macroinvertebrate assessments. Although the MPCA did not involve the BCWMC in the impairment listing process and, hence, we have not seen the data used to list the stream as impaired, the listing aligns with the BCWMC data. Hence, we do not recommend submitting comments to the MPCA regarding the listing.

The MPCA standard for impairment is a Macroinvertebrate Biotic Index of Integrity (MIBI) score of at least 37. In 2018 we evaluated data collected from Bassett Creek during routine BCWMC monitoring in 2006, 2008, 2012, 2015, and 2018, calculated MIBI scores, and compared them to the MPCA standard. Because all Bassett Creek MIBI values during the 2006 through 2018 period were lower than the impairment threshold of 37, we concluded the stream failed to meet the MPCA standard (Figure 1). This conclusion was included in the [2018 Biotic Index Evaluation Report](#) presented at the July 2020 Commission meeting. The report notes that although MIBI scores improved in 2018 for 7 of 10 metrics, more work is needed to improve instream habitat with stream restoration projects and to continue stream monitoring and assessments. The recent addition of longitudinal dissolved oxygen monitoring studies in streams will help with stressor identification and targeting needed improvements.

When the report was presented, there was discussion about how the M-IBI standard was developed and where in the state the standard is being met. Commissioners wondered if only pristine northern MN streams could meet the M-IBI standard and if perhaps all metro streams like Bassett Creek were unable to meet the standard due to highly developed watersheds. Upon direction from the Commission, these questions were put to MPCA staff by Commission Engineers. While there was a bit of discussion back and forth, MPCA staff never had time to fully answer the questions nor did they present data or information on where in the state the standard is being met. Staff continues to recommend improving habitats

whenever possible (through CIP projects, etc.) and assessing stressors through monitoring. Commission staff will continue to engage MPCA staff to learn more about how the M-IBI standard was developed and the types of streams where the standard is met.



**Figure 1. 2006-2018 M-IBI Scores from the Main Stem of Bassett Creek**