Existing Use Determination and Rationale:

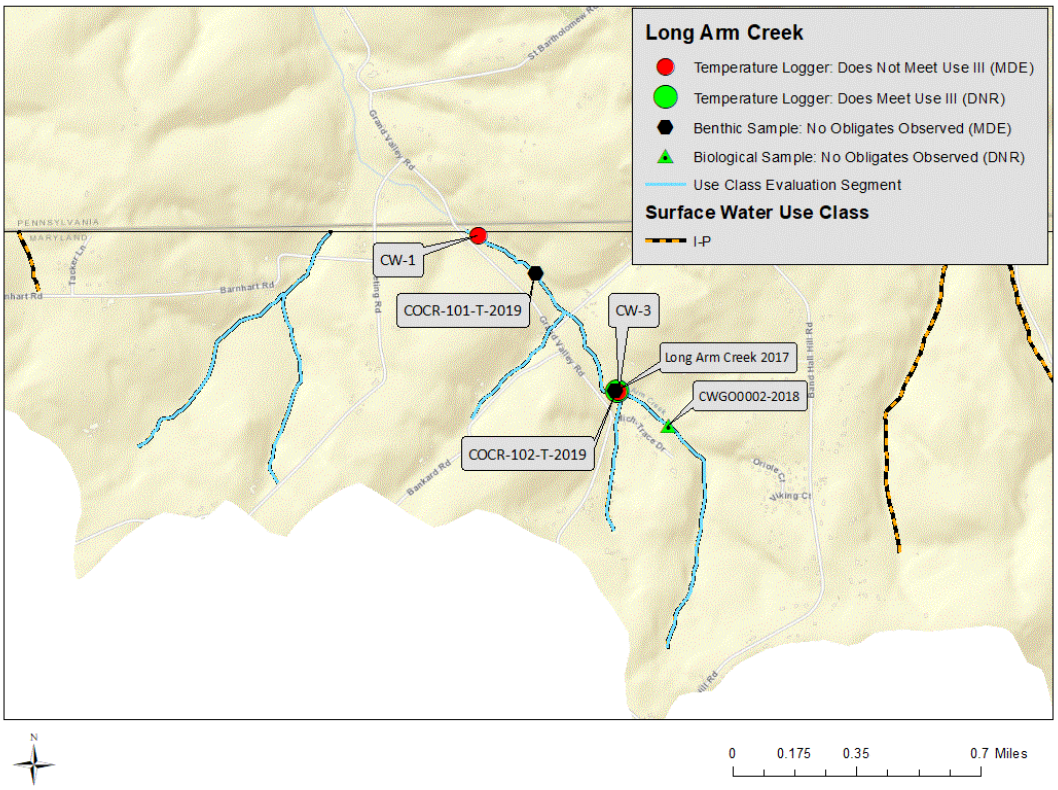
Long Arm Creek (Carroll County)

May 22, 2020

Description of Setting and Data Sources

Long Arm Creek and its tributaries (12-digit 020503010289) in the Conewago Creek watershed, located northwest of Manchester in Carroll County, are currently designated as Use Class I-P. The MDDNR Fisheries Program and MDE Field Services conducted a survey of the waterbody segment. The figure below shows the locations of the sampling stations, and water temperature and biological data results are provided in Tables 1 and 2.

Figure 1: Long Arm Creek



Temperature Data for Long Arm Creek

Water temperature data were collected at one sampling event in 2017 and two sampling events in 2019. The 2017 water temperature results meet the Class III criterion.

Table 1. Long Arm Creek Temperature Logger Data

Date	Station ID	Stream	Data Submitter	# Temp Readings	Percent>20°C	Percent>24°C	Avg Daily Mean	Daily Max
2019	CW-1	Long Arm Creek	MDE Field Services	8735	19.8%	0	18.4	23.3
2019	CW-3	Long Arm Creek	MDE Field Services	8735	16.6%	0	18.2	23.7
2017	Long Arm Creek	Long Arm Creek	MDDNR Fisheries Program	6624	4%	0%	17.58	23.02

*Water temperature logger data assessed from June to August. The “Daily Max” represents the maximum temperature from June to August.

Biological Data for Long Arm Creek

Sampling events were conducted in 2018 and 2019 and there were no cold water obligate species found. Coldwater obligate benthic macroinvertebrate species data were not collected for MDDNR Fisheries Program stations.

Table 2. Long Arm Creek Biological Data

Date	Station ID	Stream	Data Submitter	Species	Count	Maturity
2019	COCR-101-T-2019	Long Arm Creek	MDE Field Services	-	-	-
2019	COCR-102-T-2019	Long Arm Creek	MDE Field Services	-	-	-
9/13/2018	CWGO0002	Long Arm Creek	MDDNR Fisheries Program	-	-	-

Existing Use Determination and Rationale

Current Use Class: I-P

Existing Use Determination: The existing use of Long Arm Creek is no different than its currently designated use class of I-P.

Is this Existing Use Determination Consistent with the Current (March 2020) Designated Use Class? **Yes**. Since no cold water obligate species (e.g. trout, tallaperla, etc) were found within this water segment, the existing use of Long Arm Creek does not require that water temperatures remain significantly colder than the water quality criterion established to protect the current use class (Class I-P) designation. As a result, the existing use of Long Arm Creek does not require a different level of protection than that afforded by the current use class designation of I-P.

Changes Proposed to the Currently Designated Use Class: No changes are currently proposed to the designated use of this stream segment. Although earlier data has shown that this tributary attained the Class III temperature criterion in 2017, reproducing trout populations or cold water benthic macroinvertebrates have not been confirmed in this tributary. If it can be demonstrated that cold water obligates are present in Long Arm Creek, a use class change may be justified in the future.

Rationale for the Existing Use Determination: The water temperature of Long Arm Creek met the Use Class III-P temperature criterion in 2017. However, because brown trout or other cold water obligate species have not yet been confirmed within Long Arm Creek, MDE does not recognize Long Arm Creek as having an existing use associated with self-sustaining trout populations or otherwise different from Use Class I-P.

Public Review Process: This existing use determination was provided for public review and comment with Maryland's 2019 Triennial Review of Water Quality Standards which went public with the March 11, 2022 edition of the Maryland Register.